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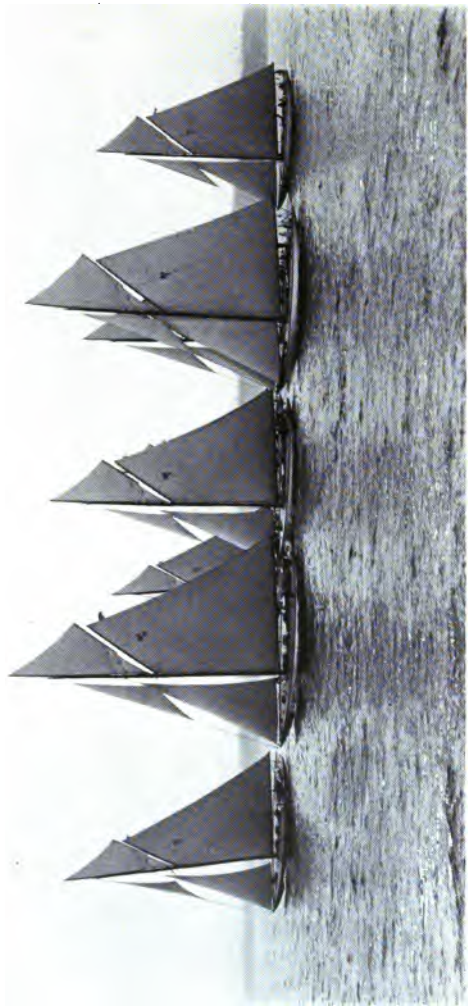


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START OF N. Y. Y. C. "FIFTIES"
ANNUAL REGATTA OF NEW YORK YACHT CLUB
26 JUNE, 1913

Handbook on American Yacht Racing Rules

An Explanation of their Meaning and Application

By

H. de B. Parsons
Joseph M. Macdonough
Frederic O. Spedden

The Knickerbocker Press

(G. P. Putnam's Sons)

New York and London

1915

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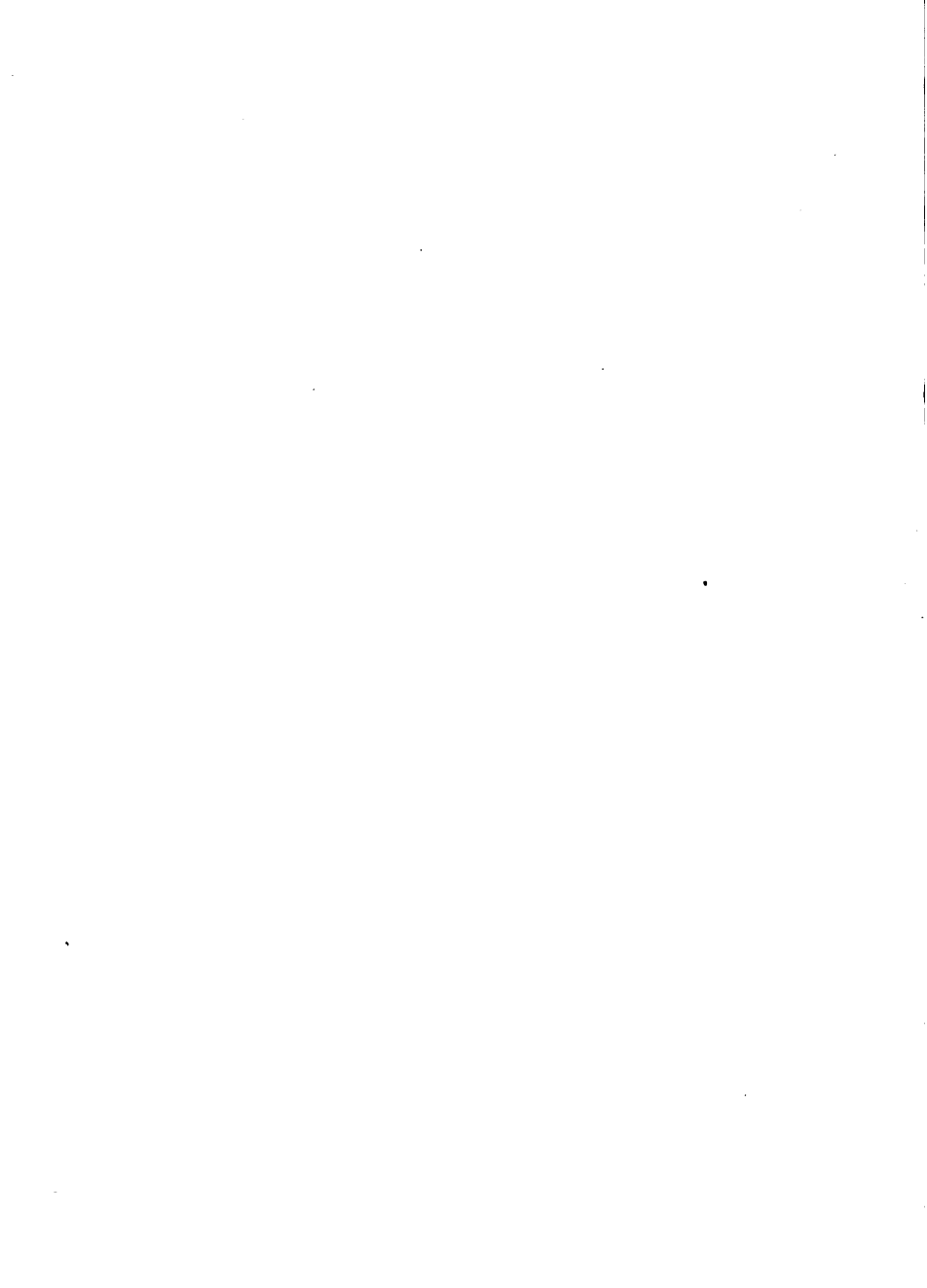
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1915

Dedication

**THIS WORK IS DEDICATED TO THE TRUE SAILOR, WHETHER BEFORE
THE MAST OR ON THE QUARTERDECK, ON WHOSE SKILL
AND ALERTNESS THE VICTORY SO MUCH DEPENDS**



PREFACE

THE object of this work is to guide the beginner and aid others to an understanding of the underlying principles of the yacht racing rules, and to explain, as clearly as possible, their interpretations, as accepted by helmsmen of experience.

The Rules of the International Yacht Racing Union, while substantially the same as those in use in the United States, differ in some particulars. When no difference exists between the American and the International Rules, it has been found advisable to accept the interpretations of the Council of the Y. R. A. of Great Britain.

The Authors have confined themselves to an interpretation of the rules as at present in existence, and have refrained from any expression of opinion on the excellence of the rules as they stand.

As it is perfectly well understood, that all Race Committees are omniscient, hydra-headed, and, therefore, all-seeing, and that all yachtsmen, at the end of their first season's racing, are thoroughly conversant with the intricacies of the Racing Rules, it may well be asked why this book was written.

The Authors, associated for several years on the Race Committee of a well-known yacht club, have the temerity to doubt the truth of the above soul-satisfying assumption, and have found that there is, even among experienced helmsmen and race committees, some diversity of

opinion as to the meaning of the Racing Rules and their application in actual racing. Therefore, it has been suggested that a few words in explanation would not be out of place.

It is fair to assume, from the history of the sport, that changes will continue to be made in the Racing Rules, and it is the Authors' hope that a study of this book may be of assistance, when planning constructive work in the future.

The Authors wish to make acknowledgment for the interesting and illuminating material, of which they have made use, contained in the *Rules of the International Yacht Racing Union* and in the *Helmsman's Handbook*, by B. Heckstall-Smith.

THE AUTHORS.

New York, 1915.

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HANDBOOK ON AMERICAN YACHT RACING RULES

CHAPTER I

Foreword

YACHT racing is so diversified in its interests and has such a varying field of activity, as always to be attractive. It calls for those attributes which make a true sportsman, namely, a happy winner and a cheerful loser. The pleasures, the excitements and risks, the outdoor life and companionship, the knowledge of the sea, of the weather, and of navigation, the cool head and quick mind when dangers are sighted ahead, all tend to make the man.

The first regatta of the New York Yacht Club, the parent organization in this country, was held on July 17, 1845, and the racing rules, at that date, were the international rules for the prevention of collisions at sea with but few modifications. To provide better sport and to restrict the dashing and risky maneuvers of helmsmen, it was found advisable to make, from time to time, certain additions to the rules.

It will be noted that these additions, on the one hand, have taken the form of permissions to depart from the

provisions of the international rules to prevent collisions at sea, while, on the other hand, they have been made to define the limits of such departures.

Again, to guard against danger of fouls, when approaching marks and obstructions, owing to the increasing number of competitors, a new set of regulations had to be devised in order to minimize the danger and, at the same time, to preserve the sporting possibilities.

The growth of the sport has necessitated various changes in the rules for measurement, classification and racing; and in the New York Yacht Club alone, from 1845 to the present time, no less than ten committees have been appointed to consider revisions of the rules. The years, in which these committees and conferences made changes, are here given:

- 1858 Revision of racing rules.
- 1883 Committee on measurement.
- 1889 Committee on measurement.
- 1895 Committee on racing rules.
- 1902 Committee on measurement.
- 1906 Committee on racing rules.
- “ Conference with other clubs.
- 1908 Conference on measurement and racing rules.
- 1912 Committee on measurement and racing rules.
- “ Conference with other clubs and organizations.

In Great Britain, from the formation of the Yacht Racing Association, in 1875, to the addition of explanatory footnotes in the Y. R. A. Rules of 1912, there has been the same evolution. The International Racing Rules were adopted, December 4, 1907, by the National Authorities in the following countries, and will remain in force for ten years, or until December 31, 1917:

Argentine Republic,
Austria-Hungary,
Denmark,
Finland,
France,
Germany,
Great Britain,
Holland and Belgium,
Italy,
Norway,
Russia,
Spain,
Sweden.

The international rating or measurement rule is of Danish origin, while the racing rules are mainly (if not altogether) founded on British experience.

It would be well, perhaps, at this point to draw attention to the "proper course" interpretation, taken from the footnotes of the Y. R. A. of Great Britain Rules for 1912. This proper course interpretation does not restrict a helmsman to the shortest possible course between marks, taking tide, wind, and other conditions into consideration, but does render him liable to disqualification on protest, if he hinders a competitor in sailing his proper course. However, this interpretation *does not* permit a leeward yacht to force a windward yacht to tack, in order that the leeward yacht may sail on her proper course. Furthermore, the practice of "tacking down wind" is *not* necessarily a deviation from a yacht's proper course.

In all cases of protest, the burden of proof should lie on the yacht which does not hold the right-of-way, under the rule on which the protest is founded.

CHAPTER II

The Committee

The name "Regatta Committee" is a relic of the days when there was only one yacht club,¹ whose chief event was an annual regatta. As now nearly all yacht clubs schedule a number of races each season, the name "Race Committee" is more suitable.

The Committee is usually composed of three or five members. A committee of three, each of whom will bear his share of the labors, is preferable to a larger committee of five members. If there is likelihood of some members being absent on race days, or if the committee has to set the various signals without the aid of assistants, the larger committee would be better. The number of members on the Race Committee, therefore, is chiefly determined by the conditions obtaining in the respective clubs.

The Committeemen should have yachting experience, but need not be necessarily expert helmsmen. A competent committeeman does not have to be an expert sailor, but he should have such sailing experience and judicial turn of mind, that he can draft proper instructions and pass correct opinions.

In drafting sailing instructions, the greatest care should be observed to avoid all ambiguity in wording. The instructions should be as short as clearness will permit

¹ The New York Yacht Club, organized in 1844.

and all superfluous sentences should be omitted. In conducting a race, the Committee should be accurate both in carrying out the details and in timing the various signals, so as not to mislead any of the competing yachts.

Committees make use of certain abbreviations and, for sake of clearness, the same abbreviations should always be used. These abbreviations are initial letters and their meanings are as below:

Abbreviations

N.M.	Not measured; or no measurement on file.
D.N.S.	Did not start.
D.N.F.	Did not finish.
T.N.T.	Time not taken.
R.M.	Rating measurement.
S.p.M.	Seconds per mile, for calculating time allowance.
E.T.	Actual elapsed time.
T.A.	Time allowance.
C.T.	Corrected time.
Disq.	Disqualified.

Beaufort Wind Scale

Force	Designation	Miles per Hour
0.....	Calm.....	From 0 to 3
1.....	Light air.....	Over 3 to 8
2.....	Light breeze.....	Over 8 to 13
3.....	Gentle breeze.....	Over 13 to 18
4.....	Moderate breeze.....	Over 18 to 23
5.....	Fresh breeze.....	Over 23 to 28
6.....	Strong breeze.....	Over 28 to 34
7.....	Moderate gale.....	Over 34 to 40
8.....	Fresh gale.....	Over 40 to 48
9.....	Strong gale.....	Over 48 to 56
10.....	Whole gale.....	Over 56 to 65
11.....	Storm.....	Over 65 to 75
12.....	Hurricane.....	Over 75

CHAPTER III

Time Allowance

ALL sporting events belong to one of two classes, viz.: championship and handicap events. In the former, each contestant is treated alike and without favor, the object being to determine the victor without regard to individual characteristics, merits, or shortcomings. In the latter, the object is to obtain a more equal contest among the competitors and to give to each an even chance of winning. Thus, the stronger or speedier contestant is handicapped in order that the weaker or slower contestant may have an equal opportunity for winning.

In general, the handicapping is done by an individual or a committee in some predetermined, arbitrary manner, and the contestants are arranged according to merit.

Nearly all yacht races are handicap events, the handicapping appearing either in the rules for measurement or in the time allowances. As under ordinary conditions, the longer vessel will sail faster than the shorter, it is necessary to have some form of handicapping, if these vessels of unequal size are to be raced together.

After the rating measurement of a yacht is determined according to fixed rules, arbitrarily made for that purpose, the handicap consists in an allowance to the smaller by the larger yacht of a certain number of minutes and

seconds. This number of minutes and seconds may be dependent on the length of the race in nautical miles, as is the more usual, or on the elapsed times of the yachts, *i. e.*, the times from the starting to the finishing of the race.

These two systems are alike in principle, because each is based on the assumption, that a yacht can sail at a definite speed under average conditions of wind, sea, and tide. The time allowance based on distance is the more convenient, because the allowances can all be worked out in advance of the finish and the yachts' corrected times can then be promptly announced, and the winner declared without delay. With allowances based on elapsed times, the yachts must finish before their elapsed times can be determined, and a delay is occasioned in calculating the allowances.

A time allowance table, based on an allowance per mile, has been worked out on the following principles.

A yacht is assumed to be able to sail, during a race, under favorable conditions of wind and sea at a certain racing-speed.

If, therefore, two yachts are taken, whose racing-speeds are denoted by S and s nautical miles per hour, then the times required to sail one mile would be $\frac{1}{S}$ and

$\frac{1}{s}$ respectively, in fractional parts of an hour.

The difference in times would be the amount that the larger yacht would beat the smaller in a one-mile race, so that the larger yacht S would have to allow the smaller s , a handicap or time allowance of

$$\frac{1}{s} - \frac{1}{S}$$

for every nautical mile in the race, in order that each might have an equal chance of winning.

Expressing this time allowance in seconds per nautical mile,

$$T.A. = \frac{3600}{s} - \frac{3600}{S} \dots\dots\dots (1)$$

since there are 3600 seconds in each hour.

Formula (1) would be an accurate formula, provided correct values could be given to s and S. As the racing-speeds are not determinable in advance, other values have to be substituted for s and S. It has been found by experience that a yacht's racing-speed is approximately proportional to the square root of the yacht's length. Therefore formula (1) becomes

$$T.A. = \frac{3600}{\sqrt{I}} - \frac{3600}{\sqrt{L}} \dots\dots\dots (2)$$

By "racing-speed" is meant the average under favorable conditions, and not the maximum speed at which a yacht will sail.

Yachts are measured according to some rule which embodies the elements of speed. The result of such measurement gives a value for rating measurement, known as the yacht's R.M. This rating measurement is equivalent to the yacht's racing length. By substituting R.M. for L in (2), the formula becomes

$$T.A. = \frac{3600}{\sqrt{r.m.}} - \frac{3600}{\sqrt{R.M.}} \dots\dots\dots (3)$$

It has been found by experience that this formula gives time allowances which are too large, and in order to secure results more in agreement with speeds actually obtained, various constants were introduced.

The average speeds of various yachts in different races were recorded in seconds per mile, by dividing the elapsed times by the distances. A curve was drawn to express these speeds; the ordinates being time in seconds to sail one mile, and the abscissæ the yachts' R.M.s., as is shown in Figure 1.

This curve is parabolic, and its mathematical expression is given in formula (4). Its solution is the time in seconds required by a yacht to sail one nautical mile, under usual average conditions of racing.

$$\text{Racing-speed} = \frac{f(3600)}{\sqrt{\text{R.M.}}} + C \dots\dots\dots (4)$$

in which f and C are constants.

Prior to 1909, the value of f was taken at 0.7 and C at 154.24, so that formula (3) became

$$\text{T.A.} = 0.7 \left\{ \frac{3600}{\sqrt{\text{r.m.}}} - \frac{3600}{\sqrt{\text{R.M.}}} \right\} \dots\dots\dots (5)$$

As this still gave too great an allowance, it was reduced by assuming f at 0.6 and C at 183.64. Therefore the time in seconds for a yacht to sail one mile would be

$$\text{Racing-speed} = 0.6 \left(\frac{3600}{\sqrt{\text{r.m.}}} \right) + 183.64 = \frac{2160}{\sqrt{\text{R.M.}}} + 183.64 \dots\dots\dots (6)$$

The time allowance per mile, in seconds, between yachts of different ratings would be

$$\text{T.A.} = 0.6 \left(\frac{3600}{\sqrt{\text{r.m.}}} - \frac{3600}{\sqrt{\text{R.M.}}} \right) = \frac{2160}{\sqrt{\text{r.m.}}} - \frac{2160}{\sqrt{\text{R.M.}}} \dots\dots\dots (7)$$

Formula (7) is the one by which the time allowance table has been calculated. Experience has shown that it produces very fair results, and that yachts of widely

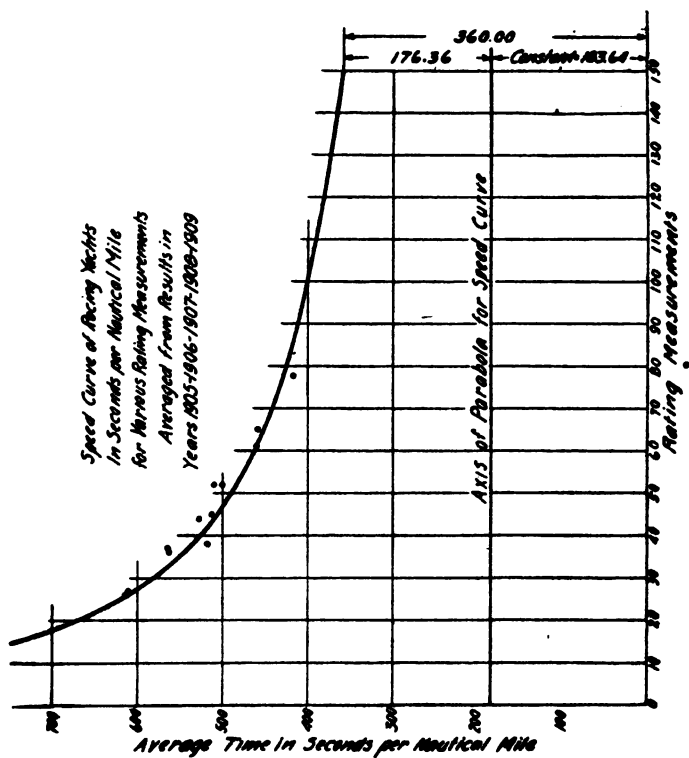


Figure I

different ratings may be raced against each other. The time allowance table is given in Chapter VIII.

In explanation of Figure 1., the dots have been placed to scale, to represent the average speeds of yachts of different ratings, by dividing their actual elapsed times in numerous races by the lengths of the races. The constant, C, was made fractional simply for convenience. The value of 183.64 was selected, because it would make the time, as given by the formula, for a yacht of 150 R.M. to sail one mile, an even 360 seconds, or 6 minutes, that is at a speed of 10 knots.

An Arbitrary Allowance Based on Elapsed Time

As yachts become old and are out-built for speed in their regular classes, they can be raced in so-called "Handicap Classes," and still have good competitive sport. In these handicap classes, the time allowance is arbitrarily figured in percentage of elapsed time.

An official handicapper is chosen, who divides the yachts into classes, approximately according to speed and size. He keeps a record of all performances, to aid him in handicapping for subsequent events, and he sends the handicap percentages to a Club the day before its race.

If a yacht wins the allowance for the next race is made less, and, *vice versa*, if a yacht loses its allowance is increased. Thus, it will be seen that it is only a matter of number of races before a yacht must win, since the allowance is based on speed as actually shown in races, and not on theoretical speed as based on length.

The advantages of this plan of handicapping are that yachts may race whose normal speeds are slow, and that

yachts may compete without the expense of cleaning at short intervals or purchasing new sails. In consequence these handicap classes have proven attractive to many yachts racing on Long Island Sound.

In the New York Yacht Club, a set of rules for racing older yachts was made in 1908, so as to embody the two advantages just mentioned. There have not been enough contests to thoroughly test these rules, which, however, are given below.

Handicap Class Rules of the New York Yacht Club

1. A yacht shall not be eligible to enter a handicap race until the third season after the date of launching.

2. Yachts in a handicap class shall sail in cruising trim, and in addition, lug foresails on schooners shall be barred.

3. Yachts shall be rated for handicapping according to the average of actual speeds, in seconds per nautical mile, in five races sailed, which races shall be selected by the Handicap Committee.

4. The percentage which the fastest yacht shall allow any other yacht shall be calculated by the formula:

$$\text{Percentage} = Q \left(\frac{1}{F} - \frac{1}{Q} \right) \times 100.$$

where F is the speed of the fastest yacht and Q the speed of the yacht in question, both in seconds per mile. For convenience the nearest tenth of one per cent. shall be used.

5. The Handicap Committee shall have power to omit for handicapping purposes races in which the speed in seconds per mile of the fastest yacht in the handicap class exceeds 150 per cent. of F.

6. The elapsed time of a yacht which finishes ahead and is disqualified for any cause, will not be used in determining the value of F.

7. A yacht not starting in one or more races shall retain the last handicap assigned to her.

8. Yachts which have no suitable racing record will be arbitrarily handicapped according to the judgment of the Handicapping Committee, whose judgment shall be final, until such yacht has sailed five races.

9. The racing rules of the Club shall govern handicap classes, with the exception of those which specifically refer to rating measurement and regular time allowance.

10. The Handicap Committee may divide the yachts into two divisions, one for schooners and one for sloops and yawls. The Committee may further endeavor to divide each division into classes according to speed. The matter of such division shall be left with the Committee with power, and its decision shall be final.

CHAPTER IV

Racing Rules

THE present rules, governing yacht racing in the United States, were drafted, in 1906, at a conference of representatives from the Atlantic, Corinthian of Marblehead, Corinthian of Philadelphia, Eastern, Larchmont, and New York Yacht Clubs, and from the Yacht Racing Association of Long Island Sound, the Yacht Racing Association of Massachusetts, and the Yacht Racing Union of the Great Lakes. These rules were amended in 1908 and 1912, and were adopted by the various clubs during the spring of 1913.

As the racing rules differ from the international rules for prevention of collisions at sea, it will be of great assistance, before making a closer study, to keep in mind the following fundamental principles, which divide a race into three periods.

Fundamental Principles

In yacht racing there are three periods which must be observed, viz.:—before the Preparatory Signal, between the Preparatory Signal and the Starting Signal, and after the Starting Signal.

1. *Before the Preparatory Signal.*

Before the preparatory signal yachts are amenable

only to the ordinary international regulations (for merchant ships) for preventing collisions at sea.

2. *Between the Preparatory and Starting Signals.*

Before the starting signal no question of proper course can arise and a yacht holding right-of-way may alter course in any reasonable manner, but a leeward yacht under overlapping conditions may not start a luff, when in position where by Racing Rule XII., Sec. 6, Clause (a) she would be forbidden to continue to luff.

3. *After the Starting Signal.*

There is a proper course. As there is now a proper course, a yacht holding right-of-way must not prevent another yacht from crossing the starting line, and may be disqualified on protest if she obstructs the other by sailing a course unreasonably wide of her own proper course for the next mark.

Definition of Proper Course

The proper course is, *prima facie*, nothing to leeward of full and by if on a wind, or to the next mark if the wind be free. There may be conditions of tide or circumstances which justify a deviation from the proper course, but in case of a protest the responsibility for proving the justification for such a deviation would lie upon the yacht so deviating.

Before the Preparatory Signal, the racing rules are not in effect. After the Preparatory, the race has commenced in the sense that the yachts are amenable to the rules, but there is no course on which to sail. After the Starting Signal, there is a course on which the yachts are ordered to proceed to sail, and a yacht, holding right-of-way during the period when there was no course, must

now let another yacht cross the starting line and proceed on its course, if the latter should desire to do so.

These fundamental principles, on which the racing rules have been constructed, become clearer when one is familiar with them and realizes that their object is to encourage a fair and friendly spirit of contest.

RULE I

This rule relates to measurements for Classification and determination of Rating Measurement (R. M.), from which Time Allowance is calculated. The rule is liable to be amended, from time to time, as it is difficult to frame a rule which will prevent the production of freak yachts. The main objects of the measurement rule are to produce yachts both good for racing and suitable for cruising, as well as to prevent the construction of purely racing machines.

Such explanations as have been thought necessary are given between the various paragraphs.

Measurement for Classification and Time Allowance¹

Yachts shall be rated for classification and time allowance according to the following formula:

$$\text{Measurement} = 0.18 \frac{L. \sqrt{S. A.}}{\sqrt[3]{D.}} \left\{ \begin{array}{l} \text{Eighteen per cent. of the pro-} \\ \text{duct of length multiplied by} \\ \text{the square root of sail area} \\ \text{divided by the cube root of dis-} \\ \text{placement.} \end{array} \right.$$

The result is the measurement and rating for classification and time allowance of sloops. Yawls shall be rated

¹ Marginal references are to the "Instructions to Measurer" which should be read in connection with the Rule for Measurement. See Chapter V.

at 93 per cent., and schooners at 90 per cent., of their measurement as determined from the above formula.

Measurements shall be made in accordance with the provisions of this rule.

Length

Before being measured, a yacht must have a "load water-line plane" established and permanently marked at bow and stern and on each side of the yacht near the point of greatest breadth. This plane shall be, as nearly as practicable, the plane of flotation when in racing trim. Each side mark shall consist of two equal equilateral triangles, whose apices touch at the established plane of flotation and whose bases are parallel to such plane. The total vertical height of each side mark shall be one two-hundredth ($\frac{1}{200}$) of the load water-line length. The bow and stern marks shall be four (4) inches long and two (2) inches in vertical height so placed that the bottom of the marks shall indicate the position of the established plane. 1

When in trim, both under cruising and racing restrictions, the vessel floating on an even keel in sea water of usual density, both side marks must be cut by the surface of the water. 3

This "load water-line plane" is to be the plane from which all calculations are made, including displacement, quarter-beam length, and draft. When once established it cannot be changed before the beginning of the next racing season, unless the yacht has undergone extensive alterations in hull. Notice of such alterations must be filed with the Measurer at least two weeks prior to the day of any race in which the yacht may start. 4 5

"Load water-line length" (L. W. L.) is the distance 6

7 in a straight line between the points farthest forward
and farthest aft in the established plane and likewise "load
water-line breadth" is the extreme breadth in the established
plane.

29 Quarter-beam length (Q. B. L.) shall be measured in a
line parallel with the middle fore and aft vertical plane, at
a distance from it equal to one quarter of the load water-
line breadth and one tenth of this breadth above the load
8 water-line plane.

9 The length used in calculating the measurement (L. in
formula) shall be the "load water-line length" plus one
half the excess of quarter-beam length over the percentage
of the load water-line length given by the formula,

$$\text{Percentage:} = 100 - \sqrt{L. W. L.}$$

provided, however, that in all boats over one hundred
(100) feet L. W. L. the percentage shall be ninety (90).

The use of a plane, established by marks on the hull,
as the basis of hull measurements is very satisfactory in
practice. It has eliminated the frequent and unsatis-
factory measurement of length, because in the formula
the length of water-line is relatively unimportant in the
determination of rating. In the modern yacht, the
ratio of L to cube root of displacement is so nearly a
constant, that slight variations in the L. W. L. plane
have no appreciable effect upon the rating.

The effect of marking a plane of flotation and measur-
ing the L. W. L. has simplified yacht measuring, and has
practically eliminated jockeying with the L. W. L., so
that owners now realize that the only important factor
in the determination of the rating is the sail area. In

fact, the present measurement rule is in effect a "sail area" rule.

Among many owners, the impression exists that this plane of flotation marks the actual L. W. L. plane, and that the yacht must be kept upon this plane of flotation. Many do not realize that they are permitted to vary the L. W. L. by ballasting or trimming within fixed but generous limits.

Any concavity at the plane of measurement of the quarter-beam length, in either the quarter-beam buttock or tenth-beam water-line, shall be bridged by a straight line of a length equal to one third ($\frac{1}{3}$) of the greatest load water-line beam. The center of such straight line, to which the quarter-beam length shall be measured, shall be placed horizontally opposite the point of measurement.

10

Any local concave jog or notch (curved or angular) at the plane of measurement of either end of the load water-line length, shall be bridged by a straight line and the L. W. L. taken to the intersection of such lines with the established load water-line plane. The stem or stern profile lines, where they cross the load water-line plane, may be fair easy curves; but any concavity in the stem line shall be bridged by a straight line equal to one third ($\frac{1}{3}$) of the greatest load water-line beam, placed equally above and below the load water-line plane. The load water-line (L. W. L.) shall be measured to the intersection of this line with the established load water-line plane.

Measurers should be careful that the lines of measurement are not shortened intentionally to evade the true meaning of this clause, which is designed to obtain a fair and sensible yacht, rather than a yacht of freakish type.

Local concave jogs or notches have been "bridged"

and the length measurement increased. As examples of this "bridging," the English yachts *Assegai*, in 1879, *Bonina*, in 1882, *My Lady Dainty* and *Nanki Poo*, in 1900, and the German yacht *Klabautermann* had their length measurements increased.

Sail Area

The Measurer shall make the following measurements, calculate the sail area therefrom in accordance with the following formulæ, and the square root of this area shall be the $\sqrt{S. A.}$ in the rating formula.

Mainsail and Topsail of Sloops, Schooners, and Yawls, and Mizzen and Topsail of Three-masted Schooners

11 *B. Length of boom measured from after-side of mast to outboard end.*

12 *G. Length of gaff, when lying on top of the boom, measured from the after-side of mast to outboard end.*

13 *P. A perpendicular to be measured along the after-side of the mast from the top of the highest sheave in the mast or topmast, or from the juncture of the mast or topmast with the eyebolt or pennant of the highest halyard block, to the upper side of the boom when touching the upper part of the goose-neck.*

14
15 *In yachts which carry the upper halyard block on a pennant, the upper point of measurement shall be the point at which the pennant is fastened to the mast.*

14 *H. A perpendicular to be measured along the after-side of the mast from the upper side of the boom, when touching the upper part of the goose-neck, to the lower edge of a black band, at least one inch in width, upon the mast, above which mark the throat cringle of the mainsail shall not be hoisted.*

D. The diagonal shall be calculated as follows:

$$D = 0.96 \sqrt{B^2 + H^2}$$

T. The length of the leech of the working topsail or jib-header to be measured from the sail when dry and stretched hard taut. 18

The area of the mainsail in sloops, schooners, and yawls, and of the mizzen in three-masted schooners and in yawls shall be obtained from the above measurements by multiplying B by H, and G by D, adding the two products together, and dividing the result by 2.

$$\text{Formula: } \frac{B \times H + G \times D}{2}$$

The area of the working topsail or jib-header shall be calculated from area of a triangle whose three sides are G, P-H, and T. In pole-masted vessels carrying sprit topsails, the length from the highest point of the sprit to the upper point of measurement of H shall be used instead of P-H in computing the area of the topsail.

Foresails of Two-masted Schooners, and Foresails and Mainsails of Three-masted Schooners

B₁. The distance to be measured between the fore-side of mainmast and after-side of foremast. 19

P₁. A perpendicular to be measured along the after-side of the foremast from the top of the highest sheave in the mast or topmast, or from the juncture of the mast or topmast with the eye-bolt or pennant of the highest halyard block, to the upper side of the boom, when resting against the upper part of the goose-neck. 20

The area of the foresail and topsail of schooners shall

be obtained from these measurements by multiplying B_1 by P_1 and taking 80 per cent. of the product.

Formula: $0.80 (B_1 \times P_1)$.

The area of the mainsail and topsail in three-masted schooners shall be obtained in a similar manner from like measurements made on the mainmast and between the main and mizzen masts.

Head Sails

J. The base J to be measured from the fore-side of mast (foremast in the case of a schooner) to where the line of the luff of the foremost headsail when extended cuts the bowsprit, other spar, hull, etc., as the case may be.

21 *P₂. A perpendicular to be measured along the forward-side of the mast in sloops, cutters, and yawls, and of the foremast in schooners, from the top of the highest sheave in the mast or topmast used for headsails or spinnaker, or from the juncture of the mast or topmast with the eye-bolt or pennant of the highest halyard block used for headsails or spinnaker, to the deck.*

22 *The spinnaker boom shall be measured when in position and at right angles to the center line of the boat from its outboard end to the center of the mast.*

The length of the spinnaker boom in yachts over 31 feet rating shall be limited to the base J of the fore-triangle, and in yachts 31 feet rating and under shall be limited to 40 per cent. of the entire base line determined by the sum of B plus J plus the diameter of the mast at the boom goose-neck, in single-masted yachts, and by the sum of B plus B₁ plus J plus the diameter of the masts in schooners and yawls. Any excess in the length of the spinnaker

boom over the above limits shall be added to the base J of the fore-triangle when computing the area of the headsails.

In all yachts the area of the headsails shall be obtained by multiplying J by P_2 , dividing the product by 2, and taking 85 per cent. of the result.

$$\text{Formula: } 0.85 \frac{P_2 \times J}{2}$$

Total Area

In sloops and cutters the total sail area for purposes of measurement shall be the sum of the area of mainsail, topsail, and headsails, as calculated by the above method; in yawls the sum of the areas of mainsail and topsail, mizzen and topsail and headsails; in schooners, the sum of the areas of mainsail and topsail, foresail and topsail and headsails; in three-masted schooners, the sum of the areas of the mizzen, mainsail, foresail, and topsails and headsails.

The number of battens in any single sail shall be limited to five for yachts rating 46 feet or over and to four for yachts rating under 46 feet. Length of battens shall not exceed the following: Upper and lower battens 10 per cent. of the length of the foot of the sail plus one foot; intermediate battens 12 per cent. of the length of the foot of the sail plus one foot.

A spinnaker may have a headstick or board not longer than one twentieth of the length of the spinnaker boom, but not a footyard or more than one sheet, or any other contrivance for extending the sail to other than a triangular shape.

In case a yacht shall carry a square sail, or square topsail, or raffee (together or separately) instead of a spinnaker, the actual area of the same shall be computed;

and if such area exceed the area of the fore-triangle, the excess shall be added in computing the total area for determining the measurement.

- 23 In case a yacht shall carry a forward or jib-stay strut, the actual area between the stay and the mast shall be calculated, and 85 per cent. of the excess of such area over that of the fore-triangle shall be added in computing the total area for determining the measurement.

- 24 In case the area of a club-topsail carried by any yacht shall exceed 150 per cent. of the area of the working topsail or jib-header, such excess shall be added in computing the total area for determining the measurement. The area of the club-topsail shall be found from the measured lengths of the three sides.

Displacement

D. Displacement to be obtained by weighing or as follows:

- 25 The load water-line shall be divided into ten equal
26 parts and the areas of the immersed cross-sections found in square feet. From these areas and the load water-line length the displacement in cubic feet shall be calculated by Simpson's Rule.

When the displacement of a yacht has been properly ascertained, it need not be redetermined except in case of specific protest, or upon notice as provided for in the third paragraph under the heading "Length."

Limits and Penalties

The limit of draft of yachts shall be in feet:

$$16\% \text{ of the } L. W. L. + 1.75$$

Any excess of draft, exclusive of center-board, as per above formula, shall be multiplied by 3 and added to the

rating; this penalty, however, shall not apply to yachts 27
launched, or keel laid, prior to January 1, 1909, whose
draft has not been increased since that date.

There shall be no limit on the actual displacement of
yachts, but the cube root of the displacement, D , as used
in the measurement formula, shall never exceed

20% of the L. W. L. plus 0.50.

If the actual displacement is smaller than that allowed
by this limit, the actual displacement shall be used in
computing the measurement; if the actual displacement
be greater, then the limiting value of the cube root of D
shall be used in computing the measurement.

A sloop shall not have more than 80% of the sail area
abaft the mast.¹

The fore-side of the mainmast of a schooner at the deck
shall not be farther forward than fifty-five (55%) per
cent. of the water-line length from fore-end of the water
line.

A ketch must have the after-side of the mizzenmast for-
ward of the point of immersion aft.¹

The after-side of the mizzenmast of a yawl shall not
be more than ten (10%) per cent. of the water-line length
abaft of the aftermost point of measurement of the load
water-line.

A catboat shall have over 80% of the sail area abaft the
mast.¹

The displacement limit, the bridging of any concavities
in the measurement of length, and the limiting definitions
of schooners and yawls shall not apply to yachts in existence,
or contracted for, on January 1, 1913, provided no radical
change in hull or rig be made subsequent to that date.

¹ Rules of Yacht Racing Association of Long Island Sound.

Scantlings ¹

The scantlings of yachts of Classes P, Q, R, S, and T shall conform to the following restrictions, except that these restrictions shall not apply to yachts in existence on January 1, 1909:

GENERAL FORMULA. *Sectional Area in square inches of any frame, deckbeam, shelf, clamp, or bilge stringer shall be expressed in terms of the square root of the displacement in cubic feet times a constant. Thickness in inches of planking, deck, or house deck shall be expressed in terms of the cube root of the displacement in cubic feet times a constant. The displacement shall be that of the yacht as when first measured, and any later increase in the same shall not entail a proportional increase in scantlings.*

FRAMES. *Frames to be of white oak.*

On the basis of 12-inch spacing on centers.

*Minimum Sectional Area, } heels = $\sqrt{D} \times 0.2$
in square inches, } heads = $\sqrt{D} \times 0.12$*

Taper between heels and heads to be straight.

The bevel, due to angle of planking, allowed from these areas.

SHELF OR CLAMP. *To be of hard pine or at least its equivalent in weight.*

Minimum Sectional Area in square inches = $\sqrt{D} \times 0.4$ to run from stem to transom with taper allowed due to necessary beveling.

¹ These scantling restrictions are in the Rules of the Y. R. A. of Long Island Sound, and are substantially the same as those of the Eastern Yacht Club.

BILGE STRINGER. To be of hard pine or at least its equivalent in weight.

Minimum Sectional Area in square inches = $\sqrt{D} \times 0.3$.

To extend at least two thirds the over-all length of the boat and to be of full Sectional Area for at least half its length, allowing a taper at ends of a 20 per cent. reduction of Area.

DECK BEAMS. On the basis of 12-inch spacing on centers.

All beams to be of white oak, or at least its equivalent in weight.

Minimum Sectional Area of Main Beams in square inches = $\sqrt{D} \times 0.3$.

Minimum Sectional Area of Auxiliary Beams in square inches = $\sqrt{D} \times 0.2$.

Minimum Sectional Area of Half Beams in square inches = $\sqrt{D} \times 0.15$.

There must be two Main Beams at each mast, one at fore-end of cabin house, one (or its equivalent in weight at this height) at after end of cabin house, and two at each skylight, hatch and companion.

The Minimum Sectional Area of Main and Auxiliary Beams shall be at the center of the beam, allowing a taper in molding of 25 per cent. reduction of area at each end.

PLANKING. *Minimum Thickness in inches* = $\sqrt[3]{D} \times 0.16$.

Minimum Thickness in inches = $\sqrt[3]{D} \times 0.14$, if hard pine or at least its equivalent in weight is used.

If, as in the case of double planking, a light wood and a heavy wood layer are used to make up the total thickness of planking, these formulæ shall be applied in direct proportion to the weight of their respective woods.

DECK AND HOUSE. Minimum Thickness of deck in inches = $\sqrt[3]{D} \times 0.15$.

Minimum Thickness of Deck may be reduced one eighth inch if canvas covered.

House Deck. Minimum Thickness in inches = $\sqrt[3]{D} \times 0.13$.

Minimum Thickness of House Deck may be reduced one-eighth inch if canvas covered.

House Sides and Forward End. To be of white oak or its equivalent in weight.

Minimum Thickness in inches = $\sqrt[3]{D} \times 0.16$.

CABIN HOUSE RESTRICTIONS. The cabin house construction of yachts of Classes P and Q shall conform to the following restrictions, except that these restrictions shall not apply to yachts in existence on January 1, 1909:

Sides and forward end of Cabin House must be vertical.

Minimum Area of top of Cabin House and Minimum Height above deck of sides and end including cabin top must be as given in the table following:

<i>Class</i>	<i>Min. Area</i>	<i>Min. Height</i>
<i>Class P. .31 ft. Measurement</i>	<i>50 sq. feet</i>	<i>8 inches</i>
<i>Class Q. .25 ft. Measurement</i>	<i>35 sq. feet</i>	<i>7 inches</i>
<i>Class R. .20 ft. Measurement</i>	<i>25 sq. feet</i>	<i>6½ inches</i>

The cabin house restrictions for Class R shall not apply to boats in existence on March 10, 1914, provided no substantial change has been made in their construction since March 10, 1914.

Certificates of Measurement

28 *The Measurer, or his assistants, shall personally measure the spars, the load water-line and quarter-beam*

lengths, as established and marked in accordance with the section headed "Length." He may accept drawings, dimensions, and calculations of any or all other specified measurements when certified to by the designer; but previous to issuing the certificate of measurement he, or his assistants, shall personally verify the line of flotation. Certificates of measurement shall give all the principal elements of length, sail area, and displacement used in computing the rating, and shall specify whether obtained from actual measurements or designer's certificates. Any request on the part of the Measurer to the designer for calculations of displacement or other factors must give length over all, length of established water-line, and lengths of overhangs, as actually measured, and shall be accompanied by a sketch sufficient to clearly show the location of the extreme forward and after points of measurement relative to the stem head, taffrail, and established load water-line plane.

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If, for any reason, the Measurer shall be of the opinion that a yacht is not fairly rated by these measurement rules, or that she does not fully or fairly comply with their requirements, he shall, after due inquiry, award such certificate of rating as he may consider equitable.

The Measurer's certificate should always state a yacht's rating to the nearest tenth of a foot. Some certificates read to the hundredths, or the second place of decimals. As time allowances are calculated from the nearest tenth, it is best that the actual figure on the certificate also be to the nearest tenth. It is customary to neglect all figures in the hundredth place from 1 to 5 inclusive, and to use the next highest tenth for all figures from 6 to 9 inclusive. Thus, a yacht's calculated rating might be 85.05, which would be called 85. even; or 85.08, which would be called 85.1.

It once happened that a yacht, built for Class E, was measured at 55.05 and so rated on the certificate. The Committee, under Rule III., had to classify the yacht at the top of class D, and figure its allowance from 65.0 R. M. in all class races. In races sailed on allowances calculated from actual rating measurement, this yacht would have had its allowance calculated from 55.0 R. M., as the Committee reads the seconds per mile in the table from the nearest tenth.

An entry should state the yacht's rating measurement, but in case of protest the owner must produce the actual certificate. While a yacht's rating measurement should be known by the Committee before a race, an owner may file a notice with the Committee that a measurement, or a remeasurement, has been asked for, and should send the certificate to the Committee as soon as possible thereafter.

If an owner does not notify a Committee in advance of a race that his yacht has been altered or remeasured, the Committee should use the certificate rating they have on file. When such new certificate is received, it need not be used for races sailed previous to its receipt, unless it gives a rating equal to or larger than the old rating. Such a refusal to use a smaller rating (when the remeasurement was made without notification) is in the nature of a penalty for not notifying the Committee in advance, because this neglect of a duty on the part of a yacht owner might work a hardship on another, by taking from the latter a prize which he considered won. It will also prevent a Committee announcing a wrong winner.

An error in measurement discovered at any time prior to the first day of November shall be corrected, and the

results of that season's races made to conform to the correct measurement.

This clause very properly calls for the correction of an error in measurement, and rightly limits the time until the close of the current yachting season, namely the first day of November. As most races are over by the middle of September, there is a month and a half leeway for an error to be discovered even after the last races.

This ruling was caused by the accidental discovery of an incorrect rating of a yacht, through the mistake of a Measurer in calculation. As the race was one of the most important of the season, the result was very distressing for the Committee, who had to inform the fancied winner, some months after the race was sailed, that he was a loser.

Certificates of measurement, subject to the foregoing and subject to the changes effected through remeasurement, shall be valid for two years only from date of issue.

Remeasurement

Yachts shall be remeasured and a new certificate issued:

(a) *At the expiration of two years from date of last certificate.*

(b) *Should the Regatta Committee so direct on account of protest, Rule XVIII., Section 2; or because, in their opinion, infringement of the measurement rule or irregularity in the certificate exists.*

(c) *Upon notification by the owner or the Regatta Committee that changes have been made in the yacht affecting her L. W. L. or sail plan. Rule XIX., Section 3.*

The results of remeasurement, as reported by the Measurer, shall be final, subject to the right of appeal, as provided in Rule XVIII., Section 3.

RULE II

The introductory clause and management rule is well worth reading, as all questions involving "fair play" are liable to be construed under it.

Management of Races

The following Racing Rules shall govern all races of the Club and any race sailed under its auspices, unless otherwise specified between the parties making the race; but as no rule can be devised capable of meeting every incident and accident of sailing, it shall be the duty of the Regatta Committee to decide any questions which may arise, not covered by the rules, and to discourage all attempts to win a race by other means than fair sailing and superior speed and skill.

A member of the Regatta Committee, who is the owner, in whole or in part, of a yacht sailing in a race, shall not act upon the Committee on any question which concerns the class in which his yacht is competing.

The meaning is clear, that the ordinary customs of the sea shall govern in determining any dispute which is not specifically covered by the rules. Therefore, in applying the rules, all acts and maneuvers, not specifically covered, should conform to those of good seamanship.

Sharp practices should be condemned and skillful sailing encouraged. With a few skippers, the sailing may be so *skillful* as to encroach on sharp work. Race Committees should observe carefully the handling of the yachts, that they may differentiate when protests are filed.

RULE III

Classification

Yachts shall be classified by rating and shall be divided into classes as below:

SCHOONERS

- | | |
|-------------------------|--|
| <i>1st Class—I</i> | <i>All over 100 feet, rating.</i> |
| <i>100 Foot Class—A</i> | <i>Not over 100 feet and over 88 feet, rating.</i> |
| <i>88 Foot Class—B</i> | <i>Not over 88 feet and over 76 feet, rating.</i> |
| <i>76 Foot Class—C</i> | <i>Not over 76 feet and over 65 feet, rating.</i> |
| <i>65 Foot Class—D</i> | <i>Not over 65 feet and over 55 feet, rating.</i> |
| <i>55 Foot Class—E</i> | <i>Not over 55 feet and over 46 feet, rating.</i> |
| <i>46 Foot Class—F</i> | <i>Not over 46 feet, rating.</i> |

SLOOPS AND YAWLS

- | | |
|-------------------------|--|
| <i>1st Class—I</i> | <i>All over 100 feet, rating.</i> |
| <i>100 Foot Class—G</i> | <i>Not over 100 feet and over 88 feet, rating.</i> |
| <i>88 Foot Class—H</i> | <i>Not over 88 feet and over 76 feet, rating.</i> |
| <i>76 Foot Class—J</i> | <i>Not over 76 feet and over 65 feet, rating.</i> |
| <i>65 Foot Class—K</i> | <i>Not over 65 feet and over 55 feet, rating.</i> |
| <i>55 Foot Class—L</i> | <i>Not over 55 feet and over 46 feet, rating.</i> |

- 46 Foot Class—M *Not over 46 feet and over 38 feet, rating.*
- 38 Foot Class—N *Not over 38 feet and over 31 feet, rating.*
- 31 Foot Class—P *Not over 31 feet and over 25 feet, rating.*
- 25 Foot Class—Q *Not over 25 feet and over 20 feet, rating.*
- 20 Foot Class—R *Not over 20 feet and over 17 feet, rating.*
- 17 Foot Class—S *Not over 17 feet and over 15 feet, rating.*
- 15 Foot Class—T *Not over 15 feet, rating.*

This part of the rule classifies the yachts according to their measurements, and the classes are distinguished by letters. Whenever the rule for measurement is amended, this classification is liable to change.

Each yacht of thirty-eight (38) feet rating and under, launched after January 1, 1905, and each yacht over thirty-eight (38) feet rating, the keel of which was laid after January 1, 1909, except those in the first classes of schooners, sloops, and yawls, shall rate at the highest limit of its class, when racing in its regular class, (except a yacht the rig of which has since been changed from sloop to schooner or sloop to yawl shall thereafter be rated for time allowance on her rating measurement under the new rig).¹

The object of racing yachts at the top of their respective classes has merit. It prevents long time allowances and tends to make closer and more interesting racing. As the

¹ The parenthesis was added by the Yacht Racing Association of Long Island Sound.

classification divides the yachts into numerous classes, there is little reason why a new yacht should not be built near the top of its particular class.

When yachts are raced in fleet divisions, or mixed classes, their actual ratings are used to figure time allowances, because small yachts are then competing with large ones, and *vice versa*.

The Regatta Committee, in the notice of a race, shall specify for what class or classes the race is given; and in such notice may combine classes, and establish special classes and conditions therefor.

*(Ketches shall be classed with schooners and catboats with sloops and yawls.)*¹

RULE IV

Time Allowance

Time allowance shall be calculated according to the table of allowance of the Club.

The theory and practice of time allowance has been discussed in Chapter III., where the formula is given for calculating a time allowance table, based on an allowance in seconds per mile.

RULE V

Restrictions (Racing Trim)

I. SAILS. A Yacht in races may carry the following sails:

A Sloop, mainsail, forestaysail, jib, jib-topsail, gaff-topsail, and spinnaker. A Sloop over 31 feet rating measurement may carry a club-topsail.

¹ The parenthesis was added by the Yacht Racing Association of Long Island Sound.

A Yawl, same as a Sloop, with mizzen, mizzen-topsail, and mizzen-staysail.

A Schooner, mainsail, foresail, forestaysail, jib, jib-topsail, fore and main gaff or club-topsail, main-topmast staysail, and spinnaker. Lug-foresails shall be barred.

A Three-Masted Schooner, same as a Schooner, with mizzen, mizzen-topsail, and mizzen-staysail.

A Yacht may set light sails over or in place of working sails, and may carry square sails, square topsails and raffees (together or separately) in place of a spinnaker. A pole-masted yacht may carry her regular sprit topsails.

The spinnaker boom when in use must be carried on the mast.

The object of restrictions for racing and cruising trim is to prevent extreme racing types and keep the expense within reasonable limits.

Lug-foresails on schooners were barred in 1912, because they became exaggerated in size, were extremely dangerous for the crews to handle in a breeze, and caused additional expense without corresponding benefit.

2. *LIFE BUOYS. Each yacht shall carry at least two serviceable life buoys, or belts, on deck, ready for use.*

3. *BOATS. Each yacht of any class named below shall carry on deck a serviceable, non-collapsible boat with round bottom, of a length not less than herein specified for her class; such boat to have oars and oarlocks lashed in.*

Classes I, A, and B of Schooners, I, G, and H of Sloops or Yawls, fourteen feet in length. Classes C and D of Schooners and J and K of Sloops or Yawls, twelve feet in length. Classes E and F of Schooners and L of Sloops or Yawls, ten feet in length.

There are some owners of racing yachts who object to the carrying of lifeboats, but the Authors are strongly of the opinion that boats should be carried, as they have known many instances where boats have materially aided in saving life.

4. *BULKHEADS, BALLAST, ETC. Floors must be left down and bulkheads and doors left standing; water tanks kept in place, and at least one bower anchor and suitable cable kept on board. Each yacht shall keep her galley fixtures and fittings on board and in their proper places. Trimming by dead weight shall not be allowed after the preparatory signal. Neither ballast nor water shall be taken in or discharged after 9 P.M. of the day before a race, but this restriction may be waived as to water only, by permission of the Regatta Committee.*

A race postponed or resailed shall, so far as regards this rule, be considered a new race.

There has been considerable argument over just what is meant by "at least one bower anchor and suitable cable on board," and a serious protest was lodged with the New York Yacht Club Committee in 1906 on this part of the rule.

In 1907, one of the Authors¹ made a study of the weight of anchors and size of cables, that a yacht should carry. He sent the result of his work to Mr. Nathaniel G. Herreshoff for criticism, and as Mr. Herreshoff's reply treated the matter in great detail, it is here given, with his kind permission, in full.

Mr. Herreshoff made several tests with anchors of his design, and after applying the results to many vessels of which he had records, he deduced the following laws:

¹ H. de B. Parsons.

"*First.* The drag on cables of vessels at anchor is proportional to exposed surface, both above and below water, omitting projecting keels.

"*Second.* The holding powers of different sized anchors are proportional to the surface of their flukes multiplied by the square of the distance they are buried in the mud.¹

"*Third.* Anchors, proportioned to have strength equal to their holding power, as in Law Second, will have their strength proportional to their weight; and the diameter of chains of equal strengths would be proportional to the square root of the weight of anchor.¹

"A general formula would be:

"Drag on Chain of vessel = Holding Power =

$a[L \times B \times (D+H)]^{\frac{1}{2}} + b(M^2 + M_1^2 + M_2^2 \text{ etc.}$

$+ Y^2 + Y_1^2 + Y_2^2 \text{ etc.}) \dots (1)$

"Proof Test of Anchor, Proof Test of Chain and "c" times Weight of Anchor, must equal Drag on Chain as in Formula (1).

"Diameter of chain = Constant $\sqrt{\text{weight of anchor}}$... (2)

"Diameter of chain in 16ths of an inch =

$$\frac{\text{Holding Power}}{\sqrt{\text{weight of anchor}}} \times 0.011.$$

"All weights are expressed in pounds.

L denotes length of yacht on deck in feet.

B " breadth of beam in feet.

D " depth of hull, omitting projecting keels, in feet.

H " average height of deck erections in feet.

M " length of masts in feet.

Y " length of yards in feet.

a " a constant, = 9.

¹ Laws Second and Third are approximations.

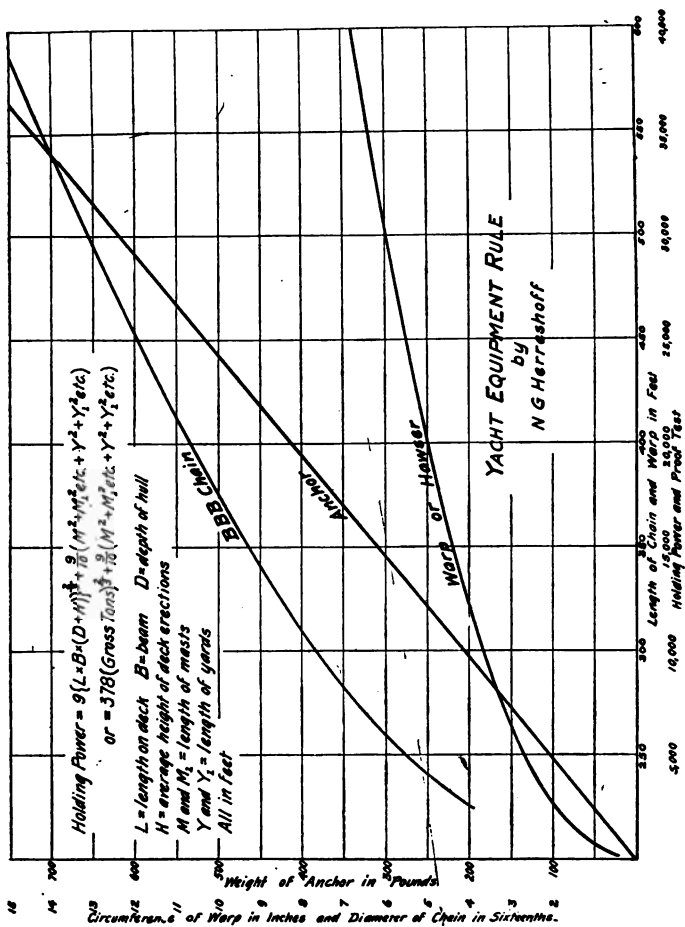


Figure II.

*Approximate Weight of Anchors for Yachts
Anchors of Herreshoff Design
Weight of Single Anchor or Equivalent Weight of Both Bower Anchors*

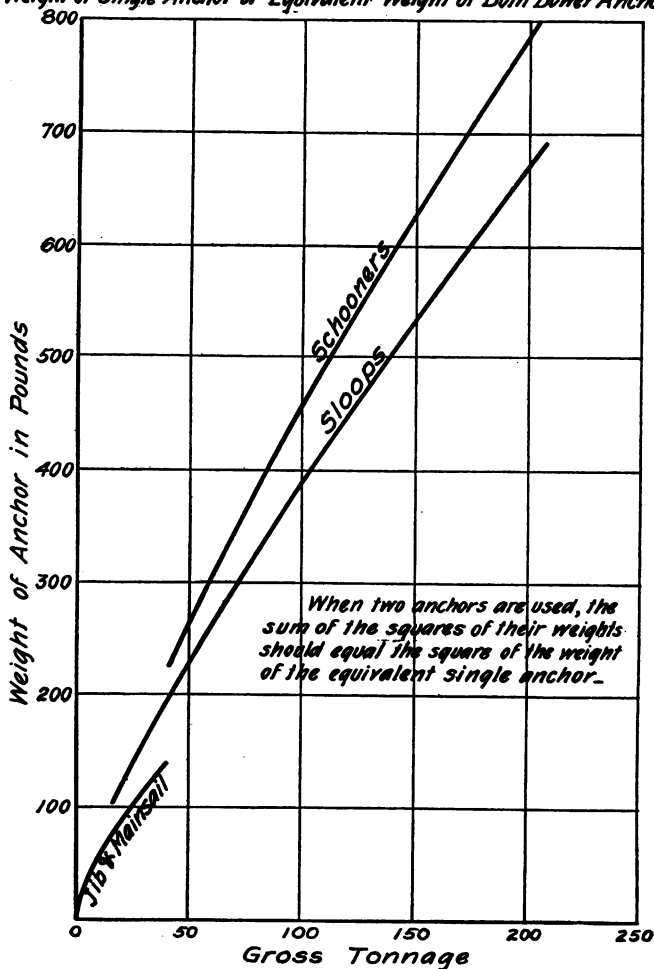


Figure III.

b denotes a constant, = 0.9.

c " a constant, = 49. (Only applies to a Herreshoff anchor, which is as light for its holding power as any in use.)

"The expression $[L \times B \times (D + H)]^{\frac{2}{3}}$ is nearly equal to 42 (gross tonnage) $^{\frac{2}{3}}$, and substituting in (1), the formula would be:

"Proof test of anchor and chain = 378 (gross tonnage) $^{\frac{2}{3}}$ + 0.9 ($M^2 + M_1^2 + M_2^2$ etc. + $Y^2 + Y_1^2 + Y_2^2$ etc.) . . . (3)

"In yachts over 35 gross tons, two bower anchors and chains are generally supplied, and the sum of the squares of the weights of the two anchors should equal the square of the weight of one anchor. For example, in place of one anchor of 100 pounds, there could be two of 86 and 50 pounds respectively, or 80 and 60 pounds, or two of 71 pounds each. The cables in each case should be proportional to the anchors attached.

"Manila hemp cables are convenient for small yachts of not over 10 gross tons, instead of chain cables.

"The results of the formulæ are shown graphically in Figure II., from which the weight of anchor, the circumference of warp, the diameter of chain, and the length of anchor cable can be quickly determined, when the holding power, or drag of vessel, is known.

"The weight of anchor is approximately shown in Figure III. for yachts of different gross tonnage. On account of additional rigging, schooners require heavier ground tackle than sloops of equal tonnage."

When using these formulæ, remember that the values of the constants as given above and the data shown in

Figures II. and III. for weight of anchor, refer only to Herreshoff anchors.

These formulæ and curves give the weight of anchor, size and length of cable, which a racing yacht should carry. The heavier anchor should be carried in racing trim, and both anchors in cruising trim. If a yacht is equipped with an ordinary anchor, instead of a patent anchor, its minimum weight should be at least that as given by these formulæ.

The racing rules contemplate weight and inconvenience due to equipment. A suitable anchor, of the weight as prescribed by these rules, could be procured, which would have a safe holding power, even if an inferior designed anchor had not.

5. *CREW.* *The total number of persons permitted on a yacht during a race shall not exceed one for every 250 square feet of sail area and fraction thereof except as below.*

In smaller classes the crew shall be limited as follows:

25-foot Class, Q, 4 persons.

20-foot Class, R, 3 persons.

17-foot Class, S, 3 persons.

15-foot Class, T, 2 persons.

In all classes of 31 feet and under, each yacht must be steered by a Corinthian, who shall be a member of a recognized yacht club, and must be manned by Corinthians, except that a yacht of the 31-foot class may carry two professionals, and a yacht of the 25-foot class or any smaller class may carry one professional.

On yachts over thirty-one (31) feet rating women, not taking any active part in the handling of the yacht, may be carried and not counted as members of the crew.

In smaller classes women, if carried, shall be counted as members of crew.

DEFINITION OF CORINTHIANISM

Corinthianism in yachting is that attribute which represents participation for sport as distinct from gain, and which also involves the acquirement of nautical experience through the love of sport, rather than through necessity or the hope of gain. No person who follows the sea as a means of livelihood, or who has accepted remuneration for services rendered in handling or serving on a yacht, shall be considered a Corinthian yachtsman.

In special, restricted, and one-design classes, even of large ratings, the owners of the yachts often mutually agree that they shall be steered by members of recognized yacht clubs, when competing in their own classes.

The requirement that yachts of thirty-one feet rating and under shall be steered by Corinthians, and the definition of Corinthianism, are in the rules of the Yacht Racing Association of Long Island Sound.

This Corinthian rule, having taught many amateurs to become most expert helmsmen, should be encouraged.

6. *BOARDING AND LEAVING. No person shall board or leave a yacht after the preparatory signal for her class has been made, except in case of accident, or injury, to a person on board.*

If a man falls overboard, it is a case of accident. The rule was originally made for small boats of the "sand-bagger" days, when shifting ballast was permitted. It then came about that members of the crew would jump overboard to lighten the vessel under circumstances favorable to such action. This jumping or falling overboard by *intention* is strictly forbidden, and should disqualify a yacht if proven.

If the man overboard is picked up by another boat,

either competing or otherwise, the yacht is not obliged to stop in order to receive him back. However, if the yacht continues on its course without making sure of his rescue, then the rule should apply, and the yacht be disqualified. This clause should be read in connection with Rule XIV.

In cases of injury, a doctor may be taken on board and the yacht may continue in the race without liability of being disqualified.

7. PRIVATE SIGNAL AND NUMBER. Each yacht shall carry her private signal at the main peak.

Racing numbers with class letters or class distinguishing mark directly above them must be displayed on both sides of the mainsail. They must be painted in dark color of clear-cut block type on rectangular pieces of canvas and securely attached to the sail, so that the bottom of the number will be on horizontal line with throat of sail and midway between luff and leach, and parallel to water line. The size of the numbers, letters, or distinguishing mark shall be not less than 15 inches each in height for yachts not over 31 feet rating, and not less than 18 inches each in height for yachts over 31 feet rating.

As it is not always possible to read the private signals, numbers and class letters are sewed on each side of the mainsail as a means of quick identification. It must not be presumed that Committees will know all the yachts and their private signals by sight. The failure to properly display a racing number has rightly caused some Committees to omit recording a yacht's time.

8. LIGHTS AND FOG SIGNALS. The Government regulations regarding lights and fog signals shall be observed.

9. *PROPULSION.* No means of propulsion other than sails shall be employed.

10. *ANCHORING, ETC.* A yacht may anchor, but must weigh anchor again and not slip. A yacht shall not warp nor kedge, nor make fast to a buoy, pier, vessel, or other object, except as provided in Section 12 of this Rule.

A yacht must not warp or kedge, as it is distinctly unfair to take in cable quickly to propel a yacht ahead. While a yacht may anchor during a race, to prevent drifting backward with the tide under calm conditions, she shall not cross the starting or finishing lines by sheering to a cable with the anchor down. In order to properly cross the line, the anchor must be clear of the ground.

11. *SOUNDING.* No other means of sounding than the lead and line shall be employed.

12. *RUNNING AGROUND AND FOULING.* A yacht running aground or fouling a buoy, pier, vessel, or other object, may use her anchors, warps, boats, etc., to get clear, but may not receive any assistance, except from the crew of the vessel fouled.

13. *POWER.* Manual power only shall be used in handling sails.

“Manual power only shall be used” means during a race. It is not to be interpreted to mean that large auxiliary yachts may not hoist their sails with power before the preparatory signal. In other words, there is no good reason why an auxiliary should not hoist its sails in the harbor with its own power, but of course must not use such power during the race, that is after the preparatory signal is made.

14. MEMBER ON BOARD. There shall be a member of the Club on each yacht.

The object of requiring a member of a recognized yacht club to be on board each yacht in a race is a simple method of having someone who can be held responsible in case of infringement of the rules, and who can hail another yacht, as required by Rule XII., Section 9.

RULE VI

Restrictions (Cruising Trim)

As many races are sailed in cruising trim, additional restrictions are made to those of racing trim.

When cruising trim is required a yacht shall conform to the following restrictions:

1. FITTINGS. Cruising deck, cabin, galley, and forecastle fittings and fixtures suitable to the size of the yacht (davits and accommodation ladder excepted) shall be kept in place. Davits and accommodation ladder shall be kept on board.

In the matter of boat davits, it is only necessary to have those davits on board which belong to the boats that are carried. The davits which belong to other boats left ashore may be left with them. If a yacht, in regular cruising trim, does not have davits, it is not the intention that a pair should be provided to comply with this rule. If, however, there is any suspicion that the davits were removed simply to come within this interpretation a Committee should require them. The fact of not having davits is of far less importance, than the intention to cheat the rule.

2. *ANCHORS AND CABLES.* An equipment of anchors and cables suitable to the size of the yacht shall be carried and of these at least one Bower anchor shall be carried in place on the bow.

3. *SAILS.* A yacht may carry the sails allowed in Racing Trim, except that topsails extending above the truck of the topmast or beyond the end of the gaff shall be barred. A pole-masted yacht may carry her regular sprit-topsails.

4. *BOATS.* Each yacht shall carry on deck or on davits at least one serviceable, non-collapsible boat with round bottom, of the size prescribed for her class in the restrictions of Rule V. (Racing Trim). Further, each yacht shall carry one such boat of not less than the following sizes: Class M, ten (10) feet in length; Class N, nine (9) feet in length; and each sloop, yawl, or schooner of thirty-one (31) feet rating and under shall carry such boat, if any, as may be prescribed by the Club or its Regatta Committee.

5. *CREW.* Only such paid hands, pilot excepted, shall be carried as live in the crew's quarters of the yacht, and the total number of persons on board shall not exceed the number allowed in Racing Trim.

6. A yacht shall conform to all the restrictions of Rule V. (Racing Trim) which are not replaced or modified by the foregoing sections of this Rule.

Section 2 should be considered with the discussion of the corresponding section on equipment of anchors and cables under Rule V.

The other sections need no comment as their meaning is clear.

RULE VII

Entries

1. *A yacht cannot be entered for a Club race unless her ownership, rig, and rating for time allowance, as computed in accordance with the Rules of the Club, are on record with the Regatta Committee.*

2. *All One-Design and Restricted Classes must file with the Secretary of the Association or the Regatta Committee, a copy of their class rules and regulations. No yacht will be entitled to start in any race in such class unless the yacht conforms to the rules and regulations of the class.*

3. *Entries shall be made as required by the Regatta Committee in the notice of the race.*

4. *Unless otherwise specifically directed in the notice of a race, as provided in Rule III., a yacht starting alone in a class shall be entitled to sail over the course for a "Sail over" prize; or such yacht may enter in the next class above at the minimum rating in such class, provided she notifies the Regatta Committee and her competitors by hoisting at the starboard main spreader the flag designating the letter of the class she so enters. Such letter must be kept flying during the entire race.*

5. *Two or more yachts owned, wholly or in part, by the same person shall not be entered in the same class, unless one of such yachts be under charter to the person in whose name she is entered.*

A person chartering a yacht must be a member of a recognized yacht club and shall be considered as the owner. No yacht which has been chartered shall be entered for a race, unless she has been chartered in good faith for a period of not less than thirty days.

The Regatta Committee may refuse or accept any entry

made after the time of closing, and they may, if they consider it expedient, reject any entry.

A yacht of a Restricted or a One-Design Class appearing alone in her class may enter and compete in the relative regular class, provided she has been measured for such class and that notice is given as specified in Section 4 of this rule.

Section 2, and the second, third, and fourth paragraphs of Section 5, are in the Racing Rules of the Yacht Racing Association of Long Island Sound. They are not in the rules of the New York Yacht Club.

The Race Committee in the sailing instructions should make clear what classes are to start, and each entry should state in what class the yacht belongs.

There are so many Restricted and One-Design Classes that frequently some are not mentioned in the sailing instructions. Such classes, desiring to start, should ask permission of the Race Committee well in advance of the hour appointed for the first class or division to start. Too frequently they leave it so late that the Committee are busy with course signals and time, and cannot give proper attention. These late entries are unfair to the Committee.

Similarly, yachts desiring to receive instructions should ask for them in advance, and not wait until the last moment, when their requests are most disturbing. Small yachts are the greatest offenders in this particular, as large ones rarely hail a Committee.

One other item is most important. An entry should clearly give the owner's full name and permanent address. As prizes cannot be distributed until after the close of the yachting season (1st November), it frequently

happens that prizes are sent to some country address only to be returned as "moved away," "address not known," or "house closed for the winter." Such neglect on the part of a yacht owner causes no end of trouble and some expense to the Committee.

RULE VIII

Instructions

1. The owner of each yacht entered for a race shall be furnished at the time of the entry, or as soon thereafter as possible, with written or printed instructions as to the conditions of the race and the courses to be sailed.

2. The Regatta Committee may change the courses or amend the instructions, provided notice of such change is given to each yacht before the warning signal is made.

This rule refers to the instructions, or sailing directions, for the race. They are generally prepared by the Race Committee, and should be as clear and as free from ambiguity as possible. Also, they should be as short as is consistent with clearness, for nothing is so distressing for a captain as to try and find some particular instruction, when in the midst of an exciting contest, or when all his attention is required during a squall.

Whatever the instructions state should be carried out in detail by the Committee, so as not to mislead the yachts as to times of starting and other important matters.

When yachts are hovering around the Committee boat, waiting for the course signals, the Committee should try to keep the yachts posted as to their plans. Thus, if the Committee is going to postpone the start for lack of wind or other reason, there should be no delay in

setting the postponement signal. Similarly, the course signals should be set as soon as determined.

Just a word about the proper hand on which to leave turning marks, that are specified in the sailing instructions. In passing round a course, the marks should all be left on the same hand, no matter whether the race is straightaway and return or is triangular. Thus, in a straightaway race, if the starting mark is left on starboard hand, the outer mark and finish mark are also left on starboard hand; and if the race is triangular the same condition applies. If the race is reversed, the marks are all left on port hand. It will be noted that the finish line should be on the opposite side of the starting mark, in other words the Committee boat will be on the opposite side of the mark. It is only in this way that Rule XIX., Section 1. can be complied with. There are two exceptions, one when the course is irregular, and the other when the starting mark is near a shoal or other obstruction and can only be left with safety on one side. In both these exceptional cases, the proper hand on which to leave the mark should be specified in the instructions.

It is not always desirable to specify each course in detail (when there are a number from which the Committee may select one on the day of a race), on account of the long reading matter that it may involve. It should be self-evident to the yachts, when a Committee signals certain marks for a straightaway and return, or for a triangular race, that *all* marks should be left on the inside of the course. In this connection it is well to remember that the Committee boat is *not* a mark for the purpose of rounding, unless specially mentioned in the instructions. The Committee boat merely limits

the ends of the starting and finishing lines, and is only a mark for these lines.

Committees should be careful in giving out instructions that *all* yachts receive the *same* instructions. It has happened, when verbal instructions were given, that they were *not* alike. This has resulted in the yachts sailing different courses.

When an error is made on the part of the Committee, a yacht sailing the wrong course should not lose the prize, nor should a yacht sailing the correct course, if it is possible to avoid it. When a yacht having sailed the wrong course would have won if she had sailed the right course, in the judgment of the Committee, it frequently can be arranged to divide the prize, or to award two prizes.

RULE IX

Amenable to Racing Rules

A yacht shall be amenable to the Racing Rules from the time the preparatory signal for her class is made, and shall continue so until her entire hull and spars have passed across the finish line.

From the setting of the warning signal, yachts whose preparatory signal has not been made, must keep clear of other yachts whose preparatory signal has been made. After crossing the finishing line a yacht shall not interfere with any yacht still in the race.

The first paragraph is clear, that a yacht is amenable to the rules until the entire hull and spars have crossed the finish line. The next rule, Rule X., states that the time at the finish is taken when the mast crosses the line,

but this does not relieve a yacht from the rules until its entire hull and spars have crossed.

If a yacht's mast crosses the finish line and her time is taken, the yacht must still continue and entirely cross before she can be considered as not being amenable to the racing rules.

If after the mast crosses the line, the yacht fouls one of the finishing marks *before* her entire hull and spars have crossed, the yacht is disqualified under Rule XIX. When her entire hull and spars have crossed the line, the yacht is beyond the jurisdiction of the Committee (unless she interferes with a yacht still in the race), and if thereafter a foul occurs by striking either mark, the yacht is not disqualified.

The rule states that a racing yacht is amenable to the racing rules from the time the preparatory signal is made until her entire hull and spars have passed across the finish line. The word "spars," in this rule, is interpreted to include "rigging."

Yachts that are not starting on a signal about to be made, should keep out of the way of those maneuvering for a start. To thus interfere with another is both careless and thoughtless, and should disqualify a yacht if the case is a serious one. Small yachts are the usual offenders.

RULE X

Start and Finish

1. The starting and finishing lines shall be indicated by a stake-boat or other mark at one end, and a white flag displayed on the Regatta Committee's boat or station at the other end.

2. *The Regatta Committee may establish, by means of a buoy or buoys, a restricted area about the starting line, within which no yacht should enter until the preparatory signal of her class is made.*

It would be well to again call attention to the difference that exists *before* and *after* the starting signal. Before the starting signal, there is no proper course; while after the starting signal, there is a proper course. Refer to "Fundamental Principles" and definition of "Proper Course," see page 14.

3. *The Committee boat or station at the finish line shall show a red ball, and after sunset shall show two red lights, and at intervals, the Club's night signal.*

A person may be placed on the stake-boat or station, at the finishing line, who shall time the yachts in the absence of the Regatta Committee.

4. *The time at the start and finish shall be taken when the foremast on a Schooner and the mainmast on a Sloop or Yawl first crosses the line after the starting signal has been made.*

Should a yacht finish before the Committee has established the finish line, then the yacht should take its own time, when the designated finish mark bears at right-angles to the direction of the last leg of the course and is distant not more than 600 feet. A yacht, so timing itself, should report its time to the Committee and compare timepieces, as soon as possible after the race.

5. *If this point¹ in any yacht be across the line when the starting signal is made, she must return and start again.*

6. *A yacht so returning, or one working into position from the wrong side of the line after the signal for starting*

¹ Foremast on a Schooner and mainmast on a Sloop or Yawl.

has been made, must keep clear of and give way to all competing yachts.

When it is self-evident that a yacht is returning in order to cross the starting line properly, that is *after* the starting signal is made, it has no right-of-way over other yachts racing, which have started properly. In altering its course to return, the returning yacht must not cause any other yacht to alter its course to prevent the risk of a foul.

In every circumstance, the returning yacht must keep clear and out of the way of all others, except those, like itself, which have been recalled or are working back from the wrong side of the line. Between these recalled yachts, the racing rules apply.

It may happen that a yacht starting too soon may be carried for some distance before it is enabled to start to return, and then it has no rights. The yachts which have started properly are not aware, or at best are not to be considered as being aware, that another is returning or working into position from the wrong side of the starting line, until its maneuvers make it obvious that such yacht is not progressing on its proper course.

Clause 6 is not in agreement with the rules to prevent collisions at sea. It is one of the special rules to fit yacht racing conditions.

RULE XI

Starting Signals

1. The Starting Signals for all races, to which attention shall be called by gun or whistle, shall be as follows:

WARNING. The hoisting of a white flag or cone.

PREPARATORY. Five minutes after the warning signal, the hoisting of the Blue Peter or Blue Peter cone.

START. Five minutes after the preparatory signal, the hoisting of a distinctive signal, as provided in instructions.

2. In starting yachts by classes or divisions, the classes or divisions shall be started at five-minute intervals by hoisting other distinctive signals for each additional class or division so started. The starting signal for one class or division shall be the preparatory signal for the next succeeding class or division.

3. The Regatta Committee may alter the time intervals between signals, when so stated in the instructions.

4. All starts shall be one-gun starts unless otherwise specified in the instructions for the race.

5. When the time of starting is postponed until later in the day, the Committee shall hoist code flag "G"; postponements shall be for even fifteen-minute intervals.

The Committee has the right to specify the starting signals, so that those given in the sailing instructions would override the requirements of this rule.

The signals should be accurately given at the times specified. Too much care cannot be taken in this particular, as every yacht has at least one stop-watch going in synchrony with the Committee's timepiece.

The "warning" is simply intended to call attention that the next signal will be the preparatory, when the racing rules come into effect. The warning, therefore, should always precede the preparatory.

It is best to specify the same intervals of time between the warning, the preparatory, and the start; and, for this purpose, an interval of five minutes has been found more satisfactory than any other, for both large and small yacht racing.

Attention to the signals is better called by a steam whistle than by a gun. The escaping steam shows clearly and is supplementary to the sound. The whistle blasts should be for five seconds as near as may be.

RULE XII

Right-of-Way

This is a most important rule, and is divided into two parts,—the first part being definitions or meanings of words used in the Right-of-Way clauses for the purpose of interpreting the Racing Rules, and the second part being the rules of Right-of-Way. Every student should familiarize himself with the definitions before applying the “rules of the road.” It should be always kept in mind that these rules of right-of-way are intended to promote yacht racing on a basis fair for all, and, therefore, have been made somewhat different from the merchant rules to prevent collisions at sea, as has been mentioned before.

It is best to explain each definition or clause separately, so as to point out the essential and controlling features.

Definitions

DEFINITION (A)—CLOSE-HAULED.

A yacht is close-hauled when sailing by the wind as close as she can lay with advantage in working to windward.

For the purpose of interpretation of these rules, a yacht is considered as close-hauled when sailing as close as it can lay to the wind with advantage. When further off the wind, the yacht is considered as sailing “free.”

A yacht sailing free is either "reaching" or "running." When the wind is forward of the beam, it is close reaching; when aft of the beam, it is broad reaching; and when over the stern, it is running.

A yacht sailing off the wind with sheets close aboard, that is trimmed flat, is not sailing to advantage. The course of the yacht in relation to the wind, and not the trim of the sails, governs these interpretations.

A yacht, close-hauled or reaching or running, remains on the same tack, even though it alters the direction of its course, until it comes about, or gybes, with the main boom on the other side.

DEFINITION (B)—WIND-AFT.

A yacht with the wind aft is deemed to have the wind on the side opposite to that on which she is carrying her main boom.

This distinction is made that two yachts with the wind aft will know how to keep clear of each other, as provided in Section 2, Clause (b) of this rule.

DEFINITION (C)—OVERLAPPING AND CLEAR.

Two yachts sailing the same or nearly the same course are said to be overlapping when either yacht has no longer a free choice on which side of the other she shall pass, and the overlap continues to exist so long as the leeward yacht by luffing, or the windward yacht by bearing away, is in danger of fouling. Otherwise they are said to be clear.

By carefully reading this definition, it will be seen that the essence of the condition called overlapping is that the two yachts must be sailing the same or nearly the same course. A luff, or the bearing away, of a few points, does not make a material alteration in the mean-

ing that the yachts are sailing approximately the same course. In this regard, the wording of the definition "nearly the same course" has been taken to mean within three points or about thirty-three degrees.

The next condition is that the yachts must be so close together that one yacht has no longer a choice of which side of the other she shall pass. The closeness to each other is dependent on the relative sizes and speeds of the yachts, their turning radii, and the condition of the sea. In rough water, especially in short, high seas, it is more difficult to steer an accurate course than in smooth water, as a yacht is liable to slide down the seas and yaw. A rough sea, therefore, increases the risk of collision.

It is evident that, with yachts of about equal size and speed, the overlap commences after there is a physical overlapping of the yachts. Also, that the overlap commences sooner when the yacht astern is the speedier of the two.

The condition can best be seen by referring to the diagrams in Figure IV. In Position 1, A has an overlap on B, because A has no longer a free choice on which side she will pass. If the yachts are farther apart, as in Position 2, there is still an overlap for the same reason. If the yachts are again farther apart, as in Position 3, there is no overlap, because A could just pass under B's stern and has a choice of sides on which to pass. In both of the Positions 1 and 2, A has just commenced its overlap, and it is to be noted that the physical lapping of A over B increases as their distance apart. In Position 3, A has not an overlap, although she is almost beam to beam with B, because she has a free choice as to which side she shall pass.

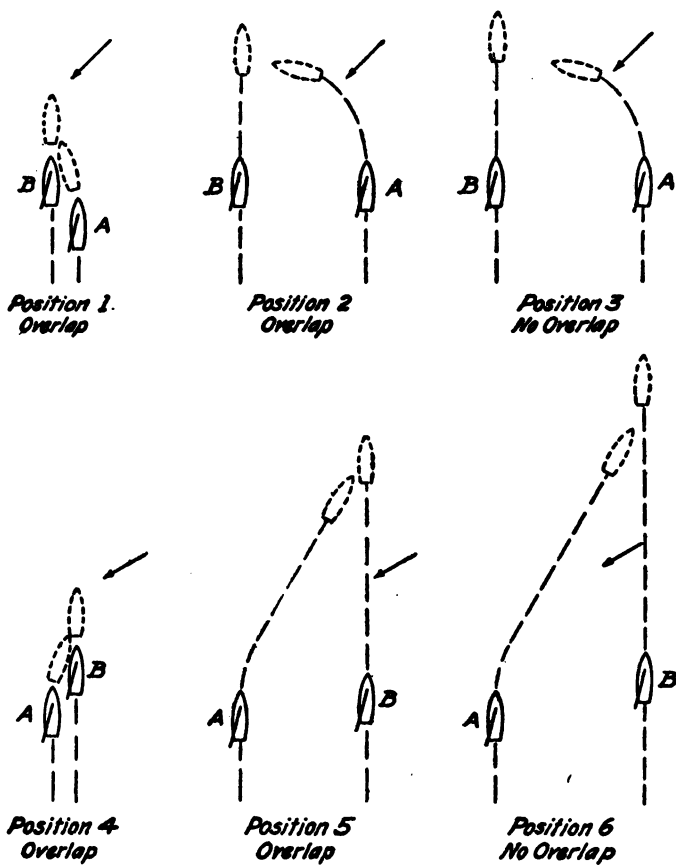


Figure IV.

In a similar manner, Positions 4, 5, and 6 show overlapping conditions, when A is on the other side or to leeward of B. There is an overlap in Positions 4 and 5, but not in 6, as then A could pass under B's stern and has a choice of sides.

The overlap continues until the leeward yacht can luff, or the windward yacht bear away, without danger of fouling. By danger is meant risk. It is not limited to an actual collision, but only to a danger or risk of collision. The rules are made to prevent collisions, and when yachts are within the danger zone, they must be steered with care. Danger of foul should be always presumed in cases of doubt.

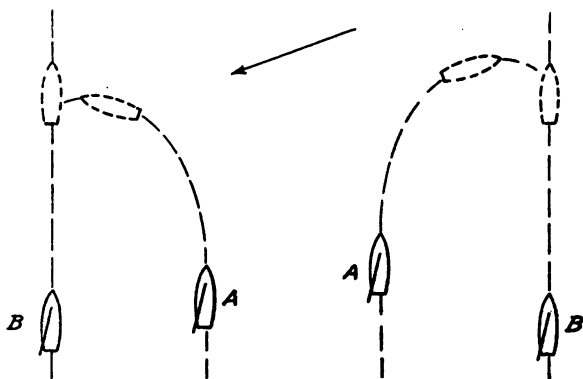
When yachts are not overlapping, that is when one is so far astern or abeam of the other that either could luff or bear away without danger of fouling, the yachts are said to be "clear," or "clear abeam," as in Positions 3 and 6. The state of being clear, therefore, is one before the overlap was established or after the overlap has ceased to exist; but must be distinguished from the meaning of "drawn clear" in Definition (D)—Overtaking.

In Figure V., positions are shown involving danger or risk of fouling by luffing and bearing away, and also positions when the yachts are clear.

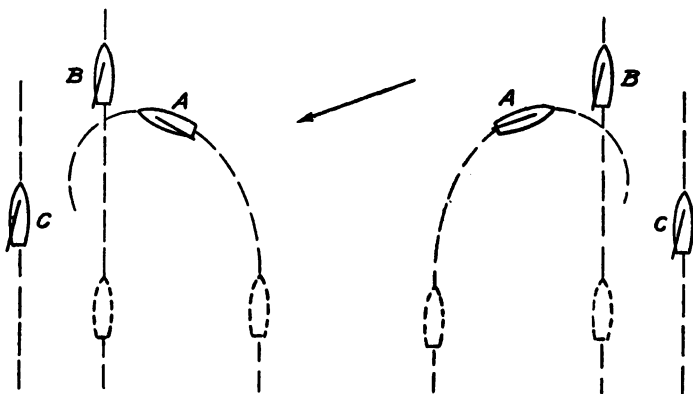
It is well to note that the right to perform such evolutions as are illustrated in Figures IV. and V. may not exist in actual racing, and that a yacht might be disqualified under some rule for so doing.

' DEFINITION (D)—OVERTAKING.

Of two yachts sailing the same or nearly the same course, the one clear astern, if approaching the other so as to involve



A and B are within danger or risk of a foul.



A is clear of B and C

Figure V.

an overlap, is said to be the overtaking yacht, and she continues such after the yachts overlap until she has again drawn clear.

In order to be an overtaking or an overtaken yacht, both must be sailing the same or nearly the same course. This point is very frequently overlooked, even by experienced sailors. To claim the rights of an overtaken yacht, under the conditions of an overlap, the yachts must be sailing approximately the same course, one coming up from clear astern, and approaching the other in such a manner as to establish an overlap, that is, about to come within danger of fouling.

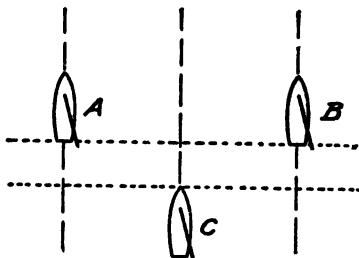
A yacht continues to be an overtaking yacht until it has "drawn clear" of the overtaken yacht. A yacht may draw clear by drawing clear ahead, or drawing clear astern, or drawing clear abeam by widening out beyond the risk of a foul. The expressions "drawn clear ahead" or "drawn clear astern" mean that clear water must show between the stern or rigging of one and the bow or rigging of the other. This clear water must be measured at right angles to the course which the two yachts are sailing; see Figure VI.

It is often difficult to decide whether a yacht is overtaking or not. Evidently the word infers that the rear yacht is sailing the faster, but in actual racing two yachts very often sail for long distances at practically the same speed, and confusion arises. In order to determine this point, see that these conditions are fulfilled: (1) approximately the same course, (2) clear astern, and (3) risk of fouling.

It is also self-evident that the condition of overtaking must exist until the yacht has drawn clear ahead,

clear astern, or clear abeam. The proof that the overtaking yacht has drawn clear of the other must always rest on the overtaking yacht.

It will be noted that a yacht merely passing another is not necessarily an *overtaking* yacht under the meaning of this definition. To be an overtaking yacht, all the conditions of overtaking must be fulfilled.



Drawn Clear

A and B are clear ahead. C is clear astern.

Figure VI.

DEFINITION (E)—LUFFING.

A yacht is luffing when she so alters her course as to sail a course more nearly into the wind.

A yacht alters its course by luffing, but does not alter its tack. This is true even if the luff is sufficient to spill the wind out of the sails, or for the yacht to come head to the wind.

DEFINITION (F)—MARK.

A mark is any vessel, boat, buoy, or other object used to indicate the course.

All marks, except established buoys and light vessels used as marks, shall fly the Club flag, or show a ball in the Club colors.

Every essential or ordinary above-water part of any object named as a mark, counts as a mark for the purpose of this rule, but no part below water, nor any object accidentally or temporarily attached to the mark counts as part of the mark.

The flag or ensign at the taffrail of a Committee boat should not count, under the last paragraph, as an essential part, but the flagstaff should.

The anchor cable of a mark below water does not count, but any portion above water does. If a yacht fouls the cable below water, and in consequence fouls the mark, the yacht should be disqualified. The same is true if the cable of a mark-vessel has to be paid out to avoid collision.

A Committee boat should not have boat booms swung out, or boats in the water alongside or astern; but, if it has, a yacht should not be disqualified for fouling them, as they are only temporarily attached.

The marks should be clearly described in the sailing instructions to avoid confusions. It should be remembered that, before the starting signal, the marks of the course are only obstructions to sea room.

Right-of-Way

When one yacht is approaching another yacht, so as to involve the risk of fouling, one of them shall keep clear of the other as follows:

Rights-of-way are specified in nine clauses. They should be interpreted as a whole. Rule II. clearly

calls attention to the following:—that “as no rule can be devised capable of meeting every incident and accident of sailing,” the Race Committee “should discourage all attempts to win a race by other means than fair sailing and superior speed and skill.”

The clear intention of the rules for right-of-way is that *all* sections should be complied with, and a yacht should not be allowed to claim rights under one section after having infringed another.

As the rights-of-way become effective with the preparatory signal, while the yachts are maneuvering for a start, causes for complaint often arise during this preliminary period.

The Authors were once asked the following questions, bearing upon conditions existing at the start. In both cases, Figure VII., it is understood that W is *not* an overtaking yacht. If W were an overtaking yacht and tried to pass L to weather, then, under Rule XII., Section 6, W must keep clear of L, while L could luff or continue its course at pleasure so as to prevent W from passing.

The line x y represents the starting line.

CASE I.: In Figure VII. (a), W and L have reached a point, when the starting signal is made, from which it is not possible to leave mark x to starboard without gybing.

At the starting signal, L bears away nearly for mark y, intending to give W a fair berth at that mark. W bears away somewhat more and a collision results. An overlap was constantly maintained.

W claims that his proper course was to the nearest available point in the starting line, and that L had prevented his crossing.

L doubts whether there is any proper course from the

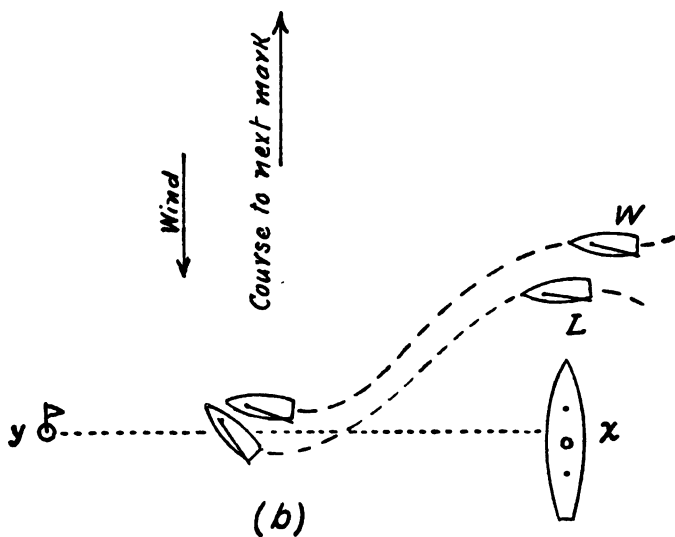
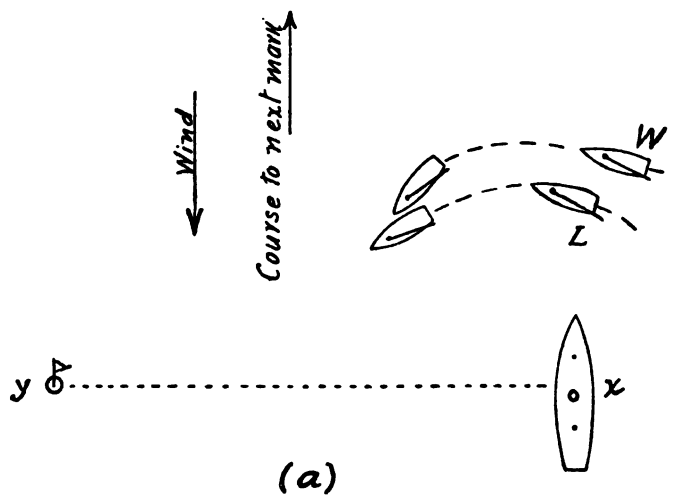


Figure VII.

wrong side of the line, and in any case claims a right to determine the part of the line he must permit W to cross.

ANSWER: When an overlap exists at the starting signal with both yachts on the wrong side of the starting line, each should give the other room to cross from the proper side. L should bear away for the line so that W can have the shortest reasonable course to the line, if W wants to take it. L has no right to infer anything to the contrary. W must not collide with L, because as the weather boat she must keep clear. If W feels she is injured, W should protest L, because the Committee cannot infer why particular movements are made.

W is right in trying to get to the nearest available point on the starting line, so as to get on her "proper course," which is from the starting line to the next mark.

L is wrong in trying to dictate where W must cross the line to get on her proper course.

CASE II.: In Figure VII.(b), the course being to windward, yachts W and L, constantly overlapping, pass to windward of mark x and bear away for the line, after the starting signal, in order to work into position from the wrong side of the line.

L crosses to the correct side of the line and then luffs to cross. W does not respond and a collision results.

W claims that his proper course was to the line and that L had prevented his crossing.

L claims rights under Rule X, Paragraph 6.

ANSWER: Both W and L should give each other room to return to the starting line after the starting signal, because W and L both find themselves on the wrong side of the line, and both start working into position from the wrong side of the starting line. With an overlap constantly existing, W is obliged to keep clear, but L must

not so alter her course in front of W as to involve a collision or a risk of fouling. See Racing Rule XII., Section 5, and Section 7, Paragraph (b). L must allow W the shortest reasonable course to cross the line.

When W crosses, she must at once go on her course and let L have the right to follow, or she must keep out of L's way and let L go on her proper course.

In both cases, it is understood that W is *not* an overtaking yacht.

As the majority of protests are founded on one of the nine sections governing right-of-way, the following general principles should assist a helmsman who finds it difficult to keep in mind all of the sections and clauses of this somewhat complicated rule:

First. A yacht with main boom to starboard has to keep out of the way of another with main boom to port.

Second. When two yachts are sailing the same or nearly the same course, the yacht to windward has to keep clear.

Third. A yacht, having right-of-way, must not suddenly alter its course or tack so as to cause a foul.

Fourth. A yacht is only allowed to luff "as she pleases," namely without regard to proximity of another yacht, which must keep clear, when she ranks as an overtaken yacht.

1. *RIGHT-OF-WAY ON DIFFERENT POINTS OF SAILING.*

A yacht free shall keep clear of one close-hauled.

All good sailors understand this section; and little difficulty is experienced under it, except in cases when the yacht sailing free does not alter its course in proper

time to keep clear, and thus confuses and embarrasses the yacht close-hauled. A yacht holding right-of-way should not be left in doubt of the intention of the other.

It is strictly bad seamanship and is prohibited under Section 5 of this rule, for a yacht close-hauled to tack suddenly in front of another that is free.

After the starting signal, a yacht holding right-of-way may be disqualified on protest if she obstructs the other by steering a course unreasonably wide of her own proper course for the next mark, taking wind, tide, and other conditions into consideration.¹

2. *RIGHT-OF-WAY ON SAME POINT OF SAILING, WITH WIND ON OPPOSITE SIDES.*

(a) *When both yachts are close-hauled and have the wind on opposite sides, the yacht with the wind on the port side shall keep clear.*

(b) *When both yachts are free, or both have the wind aft, and have the wind on opposite sides, the yacht with the wind on the port side shall keep clear.*

This section is framed particularly to avoid collision and is familiarly known as the rule of the starboard and port tack. It is the most important in many respects of all the sections and should be kept inviolate. In cases of doubt, all decisions on protest should favor the starboard tack, because it frequently happens that the yacht on the port tack is trying to sail too close to the other for safety.

As the yacht on the port tack has to keep clear, it should leave no doubt, in the mind of the helmsman of the yacht on starboard tack, of its intention to do so.

¹ Similar to the interpretation by the Y. R. A. of Great Britain.

3. *RIGHT-OF-WAY ON SAME POINT OF SAILING, WITH WIND ON SAME SIDE.*

When both yachts are free, or both have the wind aft and have the wind on the same side, the yacht to windward shall keep clear.

While this section is explicit, it has been misinterpreted as permission given to a leeward yacht to sail where she pleases. Before the starting signal (but after the preparatory), the leeward yacht may sail as she pleases, except that she cannot luff suddenly, and the weather yacht must keep clear. Before the starting signal, no question of proper course can arise, and the yacht holding right-of-way may alter its course in any reasonable manner.

After the starting signal, the weather yacht must keep clear, but the leeward yacht's course must be to the next mark, and she may be disqualified on protest if she obstructs the weather yacht by sailing a course she cannot justify to the Race Committee.¹

The Authors were once asked to give an opinion on this point, and the following was their answer.

QUESTION:

Whether before the start a leeward yacht may luff slowly at pleasure without considering whether an overlapping boat to windward is overtaking, converging, or not, is to be considered a correct ruling? If not, when does the right of a leeward boat to create converging courses by luffing cease?

ANSWER:

Before the starting signal, no question of proper course can arise.

¹ Similar to the interpretation by the Y. R. A. of Great Britain.

1. If either yacht is overtaking, the conditions are covered by Racing Rule XII., Sec. 6, Clauses (a) and (b).

2. If neither yacht is overtaking, the windward yacht must keep clear, under Racing Rule XII., Sections 3 and 4.

4. As the leeward yacht has the right-of-way, she may luff slowly, at pleasure, but the leeward yacht must not start a luff when in a position where by Racing Rule XII., Sec. 6, Clause (a), she would be forbidden to continue a luff.

Under the above conditions, the leeward yacht might carry the windward yacht past or to windward of the starting mark.

When the starting signal is given, there is a proper course, and the leeward yacht should bear away for the line if in a position to do so. If the windward yacht has an overlap on the new course then the leeward yacht must give her room.

4. *RIGHT-OF-WAY CONVERGING CLOSE-HAULED.*

When two yachts, both close-hauled on the same tack, are converging by reason of the leeward yacht holding a better wind and neither can claim the rights of a yacht being overtaken, then the yacht to windward shall keep clear.

This section gives the leeward yacht, which is the more weatherly of the two under existing conditions, the right to hold its course without regard to the weather yacht. The section does not refer to an overtaking yacht, which differs essentially from a yacht converging.

This section, like Sections 1, 2, and 3, was framed particularly to avoid collision. After the starting signal, the yacht holding right-of-way may be disqualified on protest if she obstructs the other by steering a course

unreasonably wide of her own proper course for the next mark, taking wind, tide, and other conditions into consideration. Before the starting signal, no question of proper course can arise, and the yacht holding right-of-way may alter its course in any reasonable manner.¹

5. *RIGHT-OF-WAY. ALTERING COURSE.*

When of two yachts one is obliged to keep clear, the other [subject to the provisions of Section 6, Clause (a)], shall not so alter her course as to involve the risk of fouling.

This section means that, when one yacht has to keep clear of another, the other shall not alter her course to create any risk or danger of fouling, but a yacht holding right-of-way has the privilege to alter her course, at the last minute, in order to avoid a collision; and such an alteration of course should not be construed as misleading or balking the other yacht.

This section does not override the provisions stated in the "Overtaking, Luffing, and Bearing Away" section, Clause (a).

A yacht having right-of-way may alter her course, that is, not necessarily held a steady course, so long as it does not mislead the other in her efforts to keep clear. As questions of this nature can only be settled by protest, after hearing all the facts, a Committee should hardly be expected to disqualify under Rule XIX., Section 4.

In case of protest, a yacht should be disqualified on the facts, even though an actual collision did not result. A risk of foul is all that is necessary.

¹ Similar to the interpretation by the Y. R. A. of Great Britain.

6. *RIGHT-OF-WAY. OVERTAKING, LUFFING, AND BEARING AWAY.*

A yacht overtaking another yacht shall keep clear of the overtaken yacht.

This is the next most important section after that of the starboard and port tack [Section 2, Clause (a)], and complicated questions of right-of-way frequently arise through its infraction. If a racing helmsman would only keep in mind what is meant by an overtaking yacht, many knotty problems and not a little hard feeling would be avoided.

The section is considered so important that the following clause has been added at the end:

The provisions of this section override Section 2 (b), Section 3, and Section 5 of this Rule.

Section 2 (b) refers to yachts on same point of sailing, with wind on opposite sides, when *both* yachts are free or have the wind aft; Section 3, to yachts on same point of sailing, with wind on same side, when *both* yachts are free or have the wind aft; and Section 5, to yachts altering course. It will be noticed that Section 4 is not overridden because it does *not* refer to overtaking conditions, and that Section 2 (a) is allowed to stand, because under it the yachts must converge close-hauled on opposite tacks and, therefore, neither can be an overtaking yacht.

The section is very properly divided into two clauses, (a) and (b), because a yacht coming from a position clear astern of another, while sailing approximately the same course, has a choice of sides on which she can essay to pass the overtaken yacht, that is on its windward side or on its leeward side.

These two conditions will be discussed separately, as they involve a difference in behavior.

(a) *PASSING TO WINDWARD.*

Provided that the overtaking yacht makes her overlap on the side opposite to that on which the overtaken yacht then carries her main boom, the overtaken yacht may luff as she pleases to prevent an overtaking yacht passing her to windward until the overtaken yacht is in such a position that her bowsprit end, or stem head, if she has no bowsprit, would strike the overtaking yacht abaft the main shrouds, when her right to luff further from her course shall cease.

The fairness of this clause is self-evident. If the overtaking yacht elects to pass to weather of the overtaken one, which under the circumstances is sailing the slower of the two, and thus preserves the full strength of the breeze while blanketing the leeward yacht, it is gaining a decided advantage. The clause, therefore, gives to the weaker, temporarily so at least, the right to protect itself from being blanketed. This right is the privilege of luffing as it *pleases*, that is slowly or suddenly, in any manner, just as if the overtaking yacht were not within *risk of a foul*. To avoid being luffed, the overtaking or faster yacht should have passed, or tried to pass, to leeward.

The expression "luff as she pleases" can have only one meaning, and the luffing may commence gently or suddenly at will and without any warning. The overtaken yacht does not have to look out for the overtaking yacht, which must keep clear.

A yacht passing to the weather of an overtaken yacht must be on the alert, must expect a luff in any manner, and be prepared to meet it. The weather yacht always should respond to a luff and keep clear; and, if it doubts the rights of the leeward yacht to luff, it should protest.

This right of luffing as she pleases, however, is strictly limited to an *overtaken* yacht, and is not granted to every yacht that finds another on or approaching its weather side. Notwithstanding this limitation, which is so clear in the rules, a leeward yacht occasionally will luff a yacht, which she finds on her weather, far off her course to the next mark. Committees wonder why a weather yacht, when *not* overtaking, does not protest such a maneuver.

In case of protest under Clause (a), a weather yacht would have to prove, that she did converge into the weather position, and had not been clear astern while sailing approximately the same course. A Committee could not disqualify without protest, because the maneuver might not be a self-evident violation, as it might be made with the assent of both yachts. Furthermore, the Committee might not be in a position to judge whether there was clear water between them before the overlap was established.

Under the conditions of overtaking, which is the essence of this section, the leeward yacht may begin to luff *after* the overtaking yacht is approaching so as to involve a risk of a foul; and may continue to luff until its bowsprit end, or stem-head if she has no bowsprit, would strike the overtaking yacht abaft the main shrouds. When this latter position is reached, then the leeward yacht must alter her course, in any reasonable manner, for the next mark.

The weather yacht, having established her rights to pass to weather by having succeeded in the luffing, must still keep clear; while the leeward yacht having forfeited her rights to luff further, should not hinder the weather yacht from returning to its proper course in a

reasonable manner. If, in thus bearing away, the leeward yacht again should reach a position of being overtaken, she may begin to luff anew.

If two yachts are sailing with the wind aft and with main booms on opposite sides, and if the overtaking yacht tries to pass the leading yacht on the side over

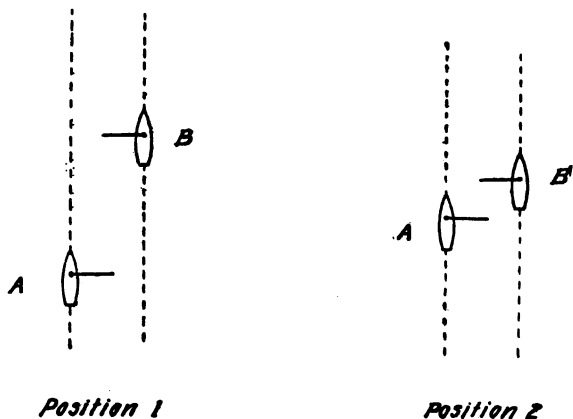


Figure VIII.

which she carries her boom, then the leader, or overtaken yacht, may not gybe after a risk of collision is involved and claim a right to luff under this clause. Such a condition is explained in Figure VIII. Suppose A is about to overtake B, as in Position 1, and elects to pass on the side that B carries her main boom. Then B may gybe *before* they are close enough to involve a risk of collision, and preserve her right to luff under this clause. If, however, B delays gybing until *after* a risk of collision is involved, as in Position 2, she then loses her right to

luff A. B may gybe, of course, but then could not claim any right to luff under Clause (a).

(b) *PASSING TO LEEWARD.*

An overtaken yacht must never bear away to prevent another yacht from passing her to leeward—the lee side to be considered that on which the leading yacht of the two carries her main boom. The overtaking yacht must not luff until she has drawn clear ahead of the yacht which she has overtaken.

As Clause (a) defines the right-of-way when an overtaking yacht passes an overtaken one to windward, so does Clause (b) define the right when the overtaking yacht passes to leeward. It will be noted that, when the overtaken yacht is being passed to windward, she may luff as she pleases in an effort or struggle to prevent being blanketed. But when the overtaking yacht kindly elects (not always with generosity) to pass the other to leeward, then the overtaken yacht must not bear away to hinder or prevent.

The words "must not bear away" mean off the proper course. One should read again the definition of proper course (see page 15) to fully comprehend this meaning. A yacht being overtaken may sail somewhat off her proper course, if tide, wind, or other conditions should so justify; but if a yacht does bear away, from full-and-by if on the wind, or from the next mark if free, the burden of proof would lie on the overtaken yacht to justify its claim, that it was only doing so to benefit by tide, wind, or other conditions. These conditions are frequently difficult to prove.

The authors were once asked a question regarding

the meaning of this clause, and the opinion rendered is here given.

QUESTION:

"We should suggest the advisability of your rendering an official interpretation of the following clause: 'An overtaken yacht must never bear away to prevent another yacht from passing her to leeward.'

"This clause has always been so vague and subject to so many different interpretations that it has caused much trouble and ill feeling, and should be settled finally one way or the other."

ANSWER:

"Before the starting signal, a yacht must never bear away, after an overlap is established, to prevent another yacht which ranks as an overtaking yacht from passing her to leeward.

"After the starting signal, the conditions are defined under Racing Rule XII., Section 6, Clause (b).

"The first sentence of this clause means that a yacht must never bear away out of her *proper course* to prevent any yacht which ranks as an overtaking yacht from passing her to leeward.

"The last sentence of this clause means that a yacht must not luff so as to foul a windward yacht or cause her to alter her course and therefore must not luff *as she pleases* until she has drawn clear.

"During the existence of overtaking conditions the *proper course* is, prima facie, nothing to leeward of full-and-by if on the wind, or of the next mark, if the wind be free; that there may be conditions of tide or circumstances other than the desire to hinder the competitor overtaking to leeward which justify a more leeward course; the responsibility for proving the justification

for such a leeward course would lie upon the weather yacht."

The last sentence of clause (b) means that the overtaking yacht to leeward must not luff so as to cause the overtaken yacht to windward to alter her course, that is must not begin to luff until it has drawn clear ahead of the yacht that has been overtaken, and has reached a position where all danger or risk of a foul is eliminated.

Should the overtaking yacht to leeward get clear ahead, and should circumstances change so that it becomes an overtaken yacht, then it can luff as it pleases, because the conditions are now covered by Clause (a).

Reaching a Yacht Past a Mark

Under this section, a yacht may carry another past a mark of the course, and such is common practice. In Figure IX. (a), suppose *x* is a mark of the course, and yacht *W* essays to pass *L* to weather. Now, *L* may luff, or continue its course at will, if *W* is an overtaking yacht and establishes her overlap before the mark is reached by *L*. Under overtaking conditions, the proper course for *L* ceases when her right to luff begins, but *L*'s proper course begins again when her right to luff ceases.

Again, in (b) of the same figure, if yacht *L* essays to pass *W* to leeward then *W* may continue to sail to the next mark, which is mark *x*. When the mark is reached, *W* may continue to sail in the same direction, and not go round the mark, as there is no rule whereby *L* can compel *W* to go about on the other tack. However, if *W*, when the mark is reached, is not sailing on the wind, it is her duty to alter her course so as to sail full-and-by, or as close to the wind as she can lay with advantage, and

thus avoid any question of dispute under Clause (b) of this section.

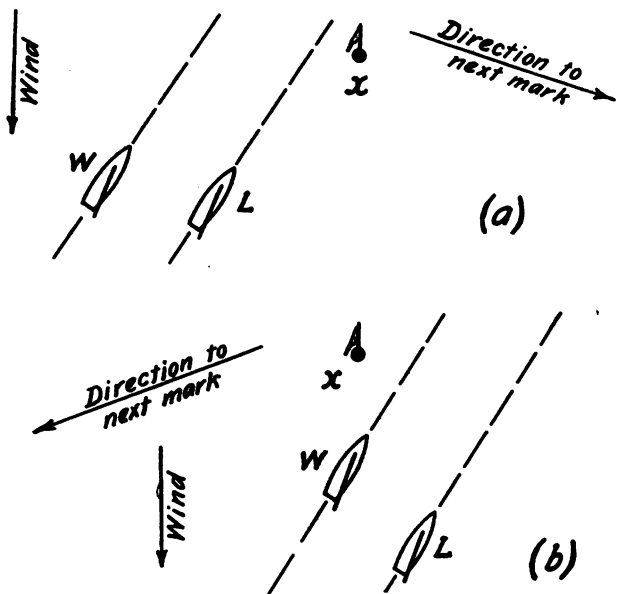


Figure IX.

7. RIGHT-OF-WAY. RIGHTS ON NEW COURSE.

A yacht shall not be entitled to her rights on a new course:

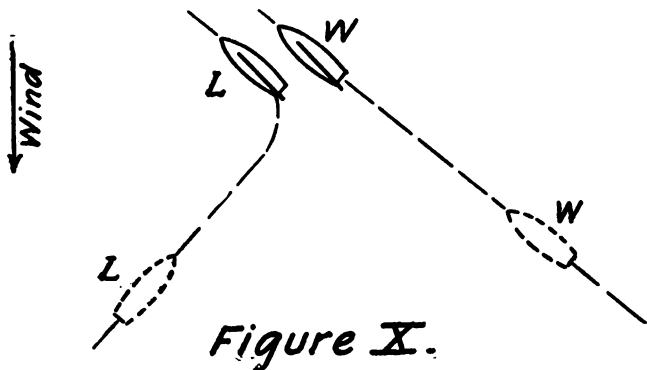
- (a) *Until she has filled away.*
- (b) *If she so alters her course as to involve the immediate risk of fouling another yacht which, owing to her position, cannot keep clear.*

Clause (a) means when a yacht tacks, that is changes her main boom to the other side, she is not entitled to

rights-of-way, until her sails have filled and the yacht is properly under way on the new course.

If a yacht is tacking to keep clear of another, the other must not maneuver so as to interfere. But yacht A, compelled to tack to keep clear of B, cannot claim any rights while thus in the act of tacking because it interferes with a third yacht C.

A yacht has no rights until it has filled away and gathered headway on its new tack. Suppose yacht L approaches W, as in Figure X, and goes about under W's



lee, then L has no right-of-way over W, until it has sailed on the new tack long enough to gather headway. It may be remarked in connection with this Figure that L could not luff W under Section 6, because W was not an overtaking boat to windward, as it did not come up from clear astern while sailing the same or nearly the same course.

In short, a yacht, which tacks and does not gather headway before a risk of collision would occur, no

matter on which side its main boom may be, should be disqualified.

The last Clause (b) means that a yacht cannot tack in front of another as to involve the immediate risk of a foul, when the other cannot keep clear. It sometimes happens that a yacht rounding a mark on the port tack,

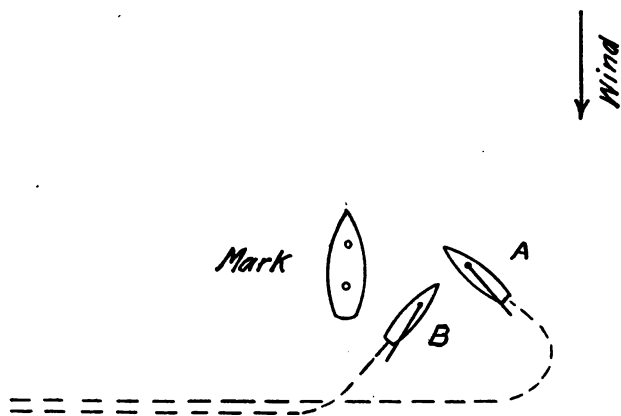


Figure XI.

Figure XI., will sail for two or three lengths and then come about on the starboard tack. In the meanwhile, another yacht has rounded the mark and hauled up between the first one and the mark. They meet, with the first one on the starboard tack, but the second is too close to pay off under its stern, and cannot come about without fouling the mark. This instance is shown in Figure XI, where yacht A reaches the mark first and does not round close, and yacht B rounds between A and the mark.

Now, A cannot alter her course to involve fouling B (even if on the starboard tack), because B cannot keep clear, owing to its position.

A yacht during a race may not suddenly heave-to in front of another and then claim, that "being hove to" should be considered as an obstruction to sea room, and that the other must go clear. This is classed as an alteration of course involving immediate risk of fouling, and also is considered as unfair sailing.

8. *RIGHT-OF-WAY. PASSING AND ROUNDING MARKS.*

If an overlap exists between two yachts when both of them, without tacking, are about to pass a mark on a required side, then the outside yacht must give the inside yacht room to pass clear of the mark.

A yacht shall not, however, be justified in attempting to establish an overlap and thus force a passage between another yacht and the mark after the latter yacht has altered her helm for the purpose of rounding.

Disputes often arise when yachts are about to pass a mark of the course on the required side, as captains do not quickly recognize the rights-of-way of the several yachts. For interpretations of the racing rules and for deciding protests, two yachts only are considered, but it is well to remember that, in racing, a yacht may be obliged to give room for a number of yachts. Thus, if there is a question between X and Y, a third yacht Z cannot be involved. X may have a question with Y, and another question with Z; or Y with Z, and another with X; but each question must be considered separately.

Under the first paragraph, the right to claim room to pass between a mark and another yacht hinges on the overlap and the same tack. To establish an overlap both

yachts must be sailing approximately the same course, that is within three points or about 33 degrees, and when one yacht has no longer a free choice on which side of the other she shall pass. If these conditions, same course and no choice of side, do not exist, this section does *not* apply. It also will be noted, that the section only applies to marks of the course and not to obstructions, which latter are covered by the next Section, Number 9. A mark of the course remains a mark, until the next one is rounded, after which it becomes an obstruction, should the yachts return anywhere near to it.

If an overlap exists before the outside yacht reaches the mark, that is before she has to alter her helm, in any manner, to clear or round the mark, then the outside yacht must give the inside yacht sufficient room for safety. In the same way, the inside yacht cannot claim room, unless it establishes the overlap before the outside yacht reaches the mark, that is *before* the latter is about to alter her helm for the purpose of clearing or rounding the mark. As the inside yacht knows, without being actually told, that the other is about to alter her course to round the mark, ignorance of the fact that this change of course will slacken speed, is no excuse for an inside yacht to rush up and claim room. The rule contemplates a fair establishment of an overlap, while sailing the same or nearly the same course on the same tack, at some reasonable distance *before* the mark is reached.

The second paragraph forbids a yacht trying "to force a passage" by establishing an overlap at the last instant, when the leading yacht is about to alter its helm for the purpose of rounding, or is about to pass a mark. The rule contemplates that the helm is altered when the mark is reached, and *not* a long distance away.

Thus, when yachts are beating toward a mark, the helm might be altered so that the yacht could reach and pass by the mark on the proper side, when the yacht was a long distance off. Such an alteration of helm is not contemplated by the section, which, clearly from its wording and its relation to the other sections, means when the mark is reached.

A leading yacht is considered to have reached a mark when she has to mind her helm for the purpose of rounding or passing it.

If a leading yacht steers wide of a mark in rounding, and another takes advantage of it and passes between such yacht and the mark, by simply sailing inside, the maneuver would be justifiable, as the passage *was not* forced. The same reasoning would apply if the yachts were being crowded together by a strong tide or in a calm.

To decide protests under this section, determine if an overlap was established before the mark was reached. If so, the inside yacht has a claim for room.

At the starting line, questions often arise under this section, but it is to be remembered that, *prior* to the starting signal, the Committee boat and the mark at the other end of the line are simply obstructions to sea room; and that, *after* the starting signal, they are both marks of the course.

In Figure XII. (a), if two yachts, A and B, come together in such a manner that B has an overlap on A, and then sail for one of the marks, A would have to give B room to pass inside, provided the starting signal was made *before* A reached the mark. If the starting signal was not made, when A reached the mark, which is then simply an obstruction, A should give B room (to

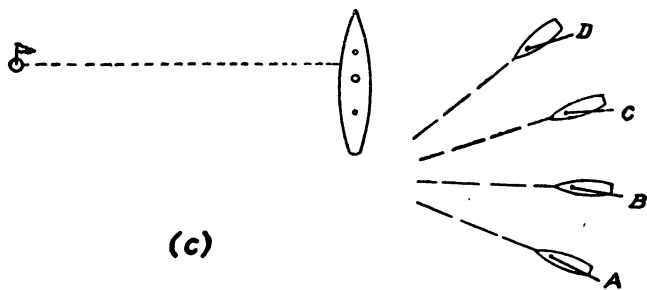
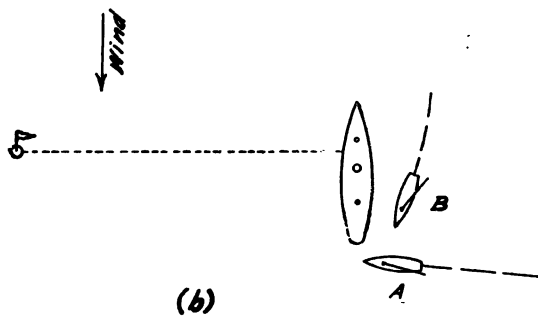
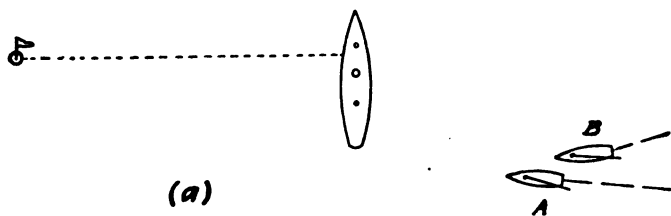


Figure XII.

prevent a collision) and protest B, under Rule XII., Sections 3 or 4, as she is the windward yacht and has to keep clear, or under Rule XII., Section 9, when the question would be settled by determining whether B could have gone clear by altering her course.

In position (b) of the same figure, if B sail into the position shown, when close to the mark, then she should be disqualified if A has to alter her course to let B pass inside; because an overlap was not established, since the yachts, A and B, were not sailing the same or nearly the same course, and because it was A's intention (known to B) to alter her helm at that instant or *very shortly* thereafter. Yacht B should have gone under A's stern.

Similarly, a condition may arise like that shown in position (c) of the same figure, where four yachts, A, B, C, and D, are all trying to pass a mark at one end of the starting line. B has an overlap on A, C on B, and D on C; but D has *not* an overlap on A, as she is not sailing the same or nearly the same course. If A holds its course long enough, it may not have time and distance to give B room to clear C, and C room to clear D. This is always a risky and dangerous start. After the starting signal, A must give room to B, and also sufficient room to let C and D pass inside. Before the starting signal, A has the right-of-way under Sections 3, 4, or 9, as explained in position (a). However, if B, C, and D have not altered their courses in time to prevent collisions, then A should give room and protest.

9. *RIGHT-OF-WAY. OBSTRUCTION TO SEA ROOM.*

When a yacht is approaching a shore, shoal, pier, rock, vessel, or other dangerous obstruction, and cannot go clear

by altering her course without fouling another yacht, then the latter shall, on being hailed by the Club member in charge of the former, at once give room; and in case one yacht is forced to tack or to bear away in order to give room, the other shall also tack or bear away as the case may be at as near the same time as is possible without danger of fouling. But should such obstruction be a designated mark of the course, a yacht forcing another

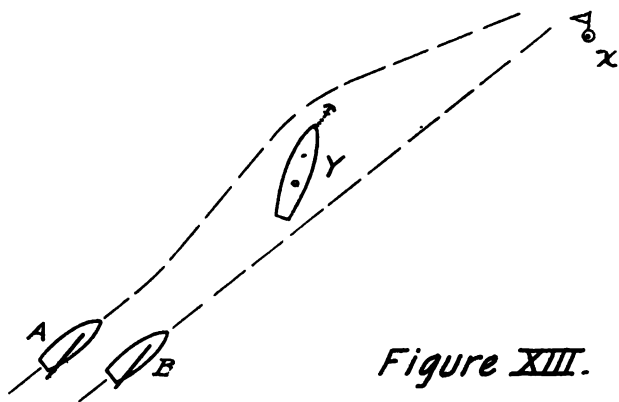


Figure XIII.

to tack under the provisions of this section shall be disqualified. (See Rule XIX., Section 2, where this rule is particularly referred to.)

A vessel under way (including another yacht racing) of which the yacht concerned has to keep out of the way, ranks as an obstruction for the purpose of this rule.

It is essential under this section, whenever a hail is necessary, that the hail should be made by the Club member on board. This provision was inserted to prevent sharp practices.

If a yacht cannot go clear of a vessel at anchor in the

course, it should not ask for room if there is free water on both sides of the obstruction. Such a position is shown in Figure XIII., in which x is the next mark, and Y a vessel at anchor with clear water on both sides. Then A has no right to hail B to alter her course to let A pass close under Y's stern. A should luff clear of Y, or go about on a short tack, if she cannot luff clear.

The last sentence of the first paragraph, reading "But should such obstruction be a designated mark of the course, a yacht forcing another to tack . . .," was added to this section, when the racing rules were revised in 1895, to cover the condition which caused the *Volunteer-Gracie* protest.¹ A mark of the course, which has clear water on all sides, is not a dangerous obstruction. A "designated *mark* of the course" refers, in this section, to a mark temporarily located (as a float or vessel) or selected (as a buoy or light-vessel) for the purpose of rounding.

¹ *Gracie* fouled *Volunteer*, in 1891, when approaching a weather mark off Block Island, in a race of the New York Yacht Club. *Gracie* could not fetch the mark on the required side, while *Volunteer*, on *Gracie's* weather, could go clear. The situation was similar to the diagram in Figure XIV. (a). *Gracie* forced *Volunteer* to tack and was disqualified. The Regatta Committee of the New York Yacht Club, at the end of their Report for 1891, made the following observations: "A mark is not an obstruction" to sea room, but is considered a dangerous obstruction "when the mark is a vessel or other formidable object and a yacht is in peril of fouling it under dangerous conditions. Here the mark is treated as an obstruction through the crisis or, in other words, when and while the question of danger enters."

"It is true that, being a mark, there must be sea room on both sides, and therefore a yacht is responsible for the danger, if, erring in judging her ability to clear on one side, she has blundered on so far that she can no longer pass on the other."

In Figure XIV. (a), if yacht L cannot go clear of the mark, but must come about to pass it on the required side, she should be disqualified for forcing W to tack in order to give her room. If L should hail W, to prevent being wrecked or damaged by collision with the mark, W should give room, and L should be disqualified on protest.

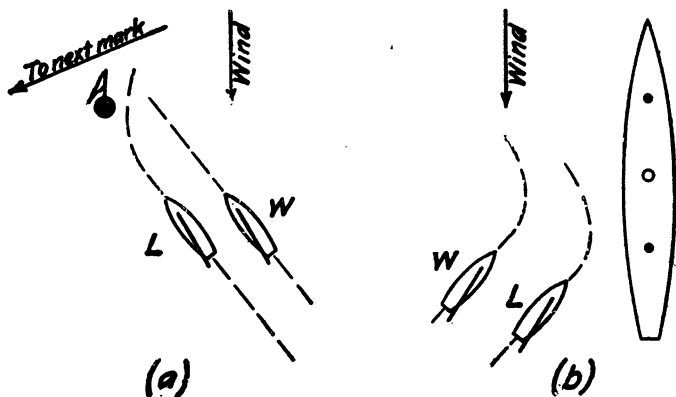


Figure XIV.

When two yachts, L and W, as shown in Figure XIV. (b), are approaching, close-hauled, a long mark, such as a large steam yacht or a light-vessel, and *neither* can go clear without tacking, then L should be disqualified if she forces W to tack in order to give room. The section clearly states that "should such obstruction be a dis-

"But no matter what the cause—or whether she was within the rules or not—the fact exists that there is danger of wrecking, and therefore Section 16* comes in and gives her right-of-way." "But if, in taking her right-of-way, she interferes with the outside yacht, she may be disqualified. . . ."

*Section 16, in 1891, was similar to Section 9 of the present rules.

nated mark of the course, a yacht forcing another to tack under the provisions of this section shall be disqualified."

An island or rock, even when used as a mark of the course, may be an obstruction under this rule. Thus, in some races of the New York Yacht Club, the course was around Block Island, which was treated as an obstruction to sea room and not as a mark.

When a Club member on a yacht hails for room, it is the essence of the rule that *both* yachts should tack or bear away, as the case may be, at as *near the same* time as possible. It cannot be considered fair to ask for room, and then stand on the same tack longer than the yacht forced to change her course. Both yachts should alter their helms at the same time, as near as may be.

If a yacht does tack to clear a shoal or obstruction, and then meets another which has the right-of-way, the former should tack again and then hail for room. A yacht headed *away* from a shoal or other obstruction cannot force another about, simply because it has just tacked to get away from the obstruction. It may be hard not to do so, but the rule is clear, namely the yacht must be approaching, not heading away from, the shore, shoal, pier, rock, vessel, or other obstruction.

Although this is the only rule in which a hail is required, it is considered good seamanship and better sportsmanship to hail another, whenever a change of course is intended, which could not be foreseen by the opponent.

Courtesy in Passing

In yacht racing, a certain amount of courtesy should be shown, though the racing rules do not provide for it.

It is customary in the majority of American regattas to start a number of different classes, with large and small yachts sailing the same or nearly the same courses. In consequence, it often happens that a large and a small yacht meet with the small one having the right-of-way. It is the duty of the large one to keep clear, and the Committee must so rule if the small yacht insists on her rights. If the yacht is a schooner, in one of the larger classes, and has a foretopsail and maintopmast-staysail set, it is very hard to be forced about, when on the port tack, by a sloop of the P or Q class or smaller, which it may meet on the starboard tack. While technically the large schooner should keep clear, it would be courteous for the small sloop to tack, because she can go about without trouble and lose but little headway, while the schooner has to care for her foretopsail and maintopmast-staysail, and further because these vessels are not racing in the same class. The schooner should prepare for tacking before it is too late, as the small craft may not give way.

In like manner it would be an act of courtesy on the part of a large yacht, if she should overtake a much smaller one on the same course, to pass to leeward and not subject the small craft to being blanketed.

Similar acts of courtesy might occur in other ways than above mentioned, but need only apply in cases where the yachts are sailing in different class races and are not competing against one another.

When a yacht intends to perform such acts of courtesy, it is well to give due notice, otherwise a dangerous situation may arise. A good motto would be, prepare and not trust to courtesy which may not be extended.

RULE XIII

Wrecking or Shifting of a Mark

Should any mark be missing or moved from its proper position during a race, the Regatta Committee shall, if possible, replace it or substitute a boat with Code flag "O" hoisted, and call attention by gun or whistle. Failing thus to reestablish the mark, the race may be ordered resailed or not, at the option of the Regatta Committee.

This rule refers to the wrecking or shifting of a mark, and provides that it may be replaced or a boat substituted for it by the Committee, failing which the Committee may order the race to be resailed, or not, at its option. In exercising this option, the Committee should be careful not to injure the standing of any competing yacht, as many sail for series prizes or points during the season. Proper inquiry would easily determine this matter.

RULE XIV

Accidents

Each yacht shall render every possible assistance to any vessel or person in peril, and if in the judgment of the Regatta Committee she shall have thereby injured her chances of winning, they shall order the race resailed between such yacht and the winner in her class.

This rule requires that each yacht shall render assistance to all yachts or persons in peril. If a yacht cannot be of such assistance, she may keep on and finish. The burden of proof would lie on the yacht so continuing.

A man overboard is an accident under this section, which should be considered with Rule V., Section 6.

When a man falls overboard, it is fair to assume it was an accident. With limited crews, there is little or no advantage in having a man jump overboard on purpose. The saving in weight is too trivial a matter to consider, except on very small yachts. However, if it can be shown that the falling overboard of a man was not accidental, the Committee should hold the yacht under Rule V., Section 6.

Should a man, lost overboard, be rescued by a boat not in the race, the yacht may continue and finish without penalty. In doing so, the yacht must assume the burden of proof that her continuance in the race did not imperil the man's life.

If a yacht launches her boat to rescue a man, she should recover the boat before continuing. The theory is that the boat is an essential part of a yacht's equipment, while a man less on board is not, since a yacht may race with a smaller crew than the maximum number mentioned in Rule V., Section 5.

If a yacht loses a man overboard and returns to pick him up, and thereby is prevented from having a chance to win the race, she has *no* claim for a resailed race under this section. The meaning of the section is that such a yacht must suffer for her own accident.

On the contrary, if a yacht has a chance to win, as judged by the Committee, because it is leading or is in a commanding position, and is delayed because it rescues or assists in rescuing a man, who has fallen overboard from a competing yacht or other vessel (not itself), or is delayed by rendering legitimate assistance to another, then such a yacht would have the right to ask for a resailed race.

The fairness of the above should be clear to all. A

yacht must not lose a man overboard, otherwise she might have a man washed(?) overboard and claim a resailed race under conditions when it could not win.

There was an interesting case, submitted to a Committee of which one of the Authors was a member, of a man washed overboard, rescued by a launch, and carried back by the launch and put on board the yacht, thus saving time for the yacht, as she only came back part way to the place where the man fell overboard. A competing yacht desired to protest, because the yacht did not *return* for the man, but the Committee in charge of the race decided there was no ground for a protest, as the yacht rendered every possible assistance, and the rule neither required nor contemplated that the man had to remain in the water until the yacht actually returned to him at the place where he fell overboard.

RULE XV

Postponed and Resailed Races

1. At any time before the Preparatory Signal the Regatta Committee shall have power to postpone any race should unfavorable weather conditions render such postponement advisable. Should the race be postponed for the day, then such postponed race shall be considered a new race. The signal for such postponement shall be Code flag "H."

2. At any time after the starting signal and before the finish the Regatta Committee shall have power to declare off or order resailed any race, should unfavorable weather conditions render a finish improbable within the time limit. The signal denoting such action shall be Code flag "J." New entries shall not be received for such resailed race,

and a yacht disqualified in the original race shall not be eligible to start in the resailed race.

This rule refers to postponed and resailed races, and should be considered with Rules XIII. and XIV.

If a race has been started under the condition that there will be no time limit, it should never be declared off or stopped by the Committee, unless the weather conditions would endanger life.

RULE XVI

Shortening Course

Should it be necessary during a race to shorten the course, Code flag "M," and two blasts of the whistle or two guns fired, shall show that the race is to be finished with the round about to be completed or at the mark where the Regatta Committee's boat is stationed when giving the signal, and the time allowance shall be proportionally reduced.

Courses are occasionally shortened when the weather conditions render it impossible to finish the full course within the time limit, and when it is neither convenient nor possible to postpone the race to another day. When a decision is reached to shorten a course, the Committee should signal the fact without delay, as the yachts are entitled to receive this information as soon as possible and thus be enabled to maneuver with that end in view.

RULE XVII

Time of Race Limited

Except when otherwise specified in the instructions, a race in any class in which no yacht has finished at one half hour after sunset shall be declared off.

A time limit is specified both for convenience and to eliminate flukes due to drifting in light airs.

RULE XVIII

Protest

1. *A yacht having cause, during a race, to protest against any other yacht for violation of these Rules shall at once display Code flag "B," and keep such flag flying until the finish of the race. A protest must be supplemented by a written statement of the facts, which must be sent to the Regatta Committee before 6 P.M. of the next (week) day following the race.*

2. *If through protest the measurement of any yacht be called in question, the Regatta Committee shall direct the Measurer to remeasure such factor or factors of the rating formula as are nominated in the protest, disregarding designers' drawings and certificates, and the result, as reported by him, shall be final. The expenses of such remeasurement shall be borne by the party against whom such protest is decided.*

3. *The decision of the Regatta Committee, as to the facts involved in any protest under the Racing Rules and the report of the Measurer as to the physical measurement of a yacht upon remeasurement shall be final.*

Findings involving interpretations of these Rules may be appealed at their discretion by the Regatta Committee or the Measurer, as the case may be, and must be appealed by them upon the written application of any party interested, when received within ten days of the publication of the decision in question, to the Executive Committee of the Yacht Racing Association,¹ whose decision shall be final.

¹ This is the Yacht Racing Association of Long Island Sound.

Any such appeal must contain a written representation of the facts and of the decision of the Regatta Committee; must be filed with the Secretary of the Yacht Racing Association, and in the case of appeal by request of a party other than the Regatta Committee or the Measurer must be accompanied by a deposit of \$25.00 which shall be refunded to the party making the appeal if such appeal is sustained, or shall be paid to the club whose Regatta Committee or Measurer is appealed from if their decision is sustained.

When a yacht feels that any act of another has violated the Racing Rules, she should protest and let the Race Committee settle the question. It is an owner's duty to do so, especially when he considers that an important rule has been infringed. If an owner will not trouble himself to protect his yacht and crew, he must not complain.

Yacht owners sometimes say they have been racing for a great many years and have *never* filed a protest and *never* will. This is equivalent to saying that either they have never had an occasion to do so, or they have neglected their plain duty, and have permitted another to take the credit of winning.

A protest flag must be displayed under the rule as a signal to both the Committee and the competing yachts. It should be hoisted without delay.

The displaying of a protest flag by small yachts is a requirement that is overlooked by some Committees, as small yachts seldom carry signal codes and often are not equipped to strictly comply with this provision. It is much more important to hoist a protest flag on a large yacht than on a small one, and competing yachts are entitled to know as soon as possible that a protest is

contemplated and the display of the flag gives such notice to the crews of both vessels.

In case of protest, the written statement should be sent, in all cases, before the limit of time, but a preliminary statement does not bar a yacht from filing further evidence before the Committee takes up the matter for decision. The Committee should follow the usual legal practice of hearing evidence from both sides and any evidence that otherwise may be properly presented.

Section 2 needs no comment, as the meaning is perfectly clear.

Section 3 states that the Race Committee's decision as to facts and the Measurer's report as to physical measurements shall be final. The Committee's decision should make clear the facts on which its opinion is based. Also, it should keep questions of fact separate from all questions of interpretation or meaning, as an appeal is provided for on findings involving interpretations of the rules. The section quoted above is from the rules of the Yacht Racing Association of Long Island Sound.

Some clubs, which are not members of this Association, have adopted modifications to suit their own requirements. Thus, the corresponding wording in the rules of the New York Yacht Club is as follows:

Findings involving interpretations of these Rules may be appealed by any of the parties involved in the protest, provided that a majority of the Flag Officers certify that there are reasonable grounds upon which to base the appeal. Such majority of the Flag Officers shall refer the appeal for final decision to the Club. Such appeal, before being acted upon by the Flag Officers, must be reduced to a written representation of the facts and must be filed with

the Secretary within thirty (30) days of the receipt of the Regatta Committee or Measurer's decision, as the case may be. If the appeal be referred to the Club, it shall be decided by a majority vote of the owners of sailing yachts (not less than seven being present) at any meeting in the notice for which a summary of the appeal shall have been stated.

As the races of the New York Yacht Club are open only to members of the club, there is merit in having all appeals referred to the club for decision. On the other hand, with clubs which give races open to yachts enrolled in any recognized yacht club, an appeal had best be made to some outside body.

The plan of having a general board of appeal has merit, as long as the board is composed of those who are competent to judge of the meaning and application of the racing rules. Under the rules of the Yacht Racing Association of Great Britain, appeals may be made to the Council, as the National Authority, and its decision is final. This is a permanent organization, and its rulings have been of great assistance to the sport of yacht racing. In America, there is no body of equal standing to the Council of the Yacht Racing Association, but in time one may be created.

RULE XIX

Disqualifications

1. Each yacht must go fairly around the course, and in rounding each specified mark her track from the preceding to the following mark must enclose it on the required side. A yacht touching a mark, unless wrongfully compelled to do so by another yacht, shall at once abandon the race.

Many yachtsmen do not comprehend the meaning of this clause, that a yacht's track from the preceding to the following mark must enclose it on the required side. Suppose the Committee should arrange for a triangular race, then to go *around* the course would clearly mean a track shown by Figure XV. (a). If the finish were as shown in Figure XV. (b), the course would *not* be around the triangle. If such a course were intended, the sailing instructions should clearly so state. When the instructions name the buoys and their order of rounding, then course (a) would be the only proper one.

The same is true for windward, or leeward, races and return, as shown in Figure XV. (c) and (d).

In order to test whether a yacht has gone "fairly around the course," imagine that the track is represented by a thread. If the finishing end be tied to the starting end, the thread, on being pulled taut, must enclose every mark of the course on the proper or required side. Suppose a yacht passes a Mark B, as in Figure XV. (e) and is carried back by the tide; then a breeze springs up, and the course sailed is as shown to the next Mark C. Although the yacht has passed Mark B, its track from the preceding Mark A to the following Mark C does *not* enclose Mark B. This can be illustrated by pulling taut the thread outlining the course, when it will be found that the thread does not enclose Mark B.

In designating a course, the Committee should try to avoid gybing in heavy weather or rough seas, by arranging for the yachts to stay around the marks.

It should be remembered that the Committee boat is *not* a mark of the course in the sense that it must be enclosed by the track, unless so designated in the sailing instructions for the race. It establishes one end of the

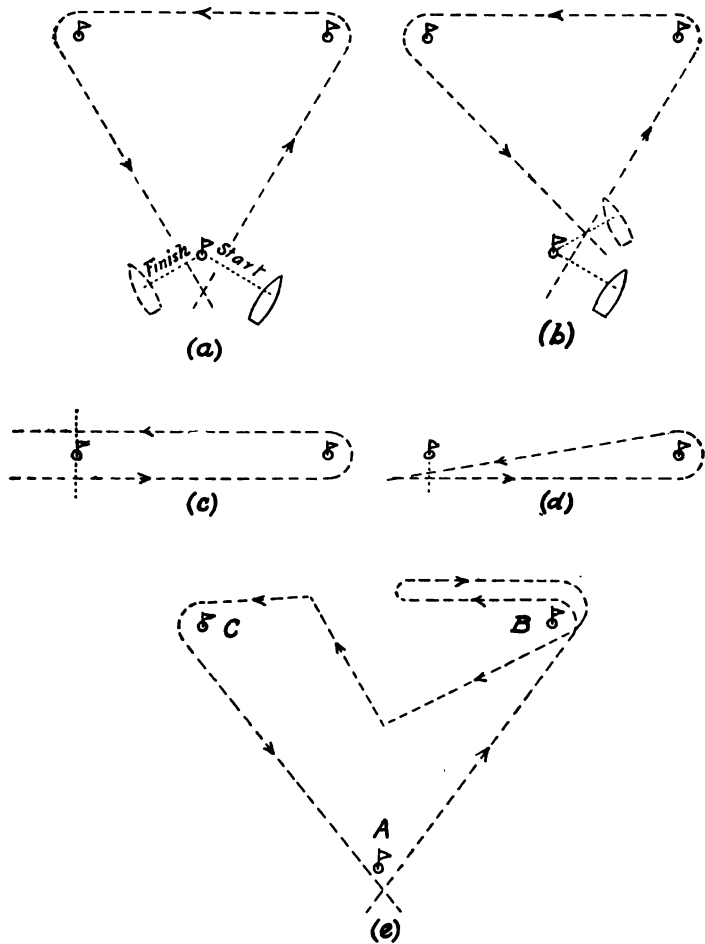


Figure XV.

starting and finishing lines, and as such should be treated as a mark under the last sentence of the clause, and not be touched by a yacht unless wrongfully compelled to do so by another yacht. An ensign on the Committee boat does not count as an essential part of the boat, as defined under (f) Mark, Rule XII. In like manner, fishing lines or rods, any object accidentally or temporarily attached, or its under-water cable, do not count.

The Committee boat, even when anchored in position, should not be rounded, unless directly specified in the sailing instruction. It *does mark* an end of the starting or finishing line of the course, and then it is a mark, as far as the other rules and the penalty of touching it under this section are concerned.

If a yacht touches a mark and feels that it was the fault of another, the yacht may continue, but should hoist the protest flag at once, as required by Rule XVIII., Section 1. There should be no delay in doing this, as it is a signal to the other yachts, that there is a question of doubt.

A yacht touching a mark, without the excuse of being wrongfully compelled to do so by another, is required to abandon the race.

2. If a yacht, in consequence of her neglect of any of these Rules, shall foul another yacht, or compel another yacht to foul any yacht, mark, or obstruction, or to run aground, she shall be disqualified and shall pay all damages; and any yacht which shall wrongfully cause another to luff, bear away, or tack, in order to avoid fouling, or shall without due cause compel another yacht to give room or to tack under Section 9, Rule XII., or shall herself fail to tack or to bear away, as required in that Section, or shall

in any other way infringe or fail to comply with any of these Rules or attempt to win a race by other means than fair sailing and superior speed and skill, shall be disqualified.

3. *After having been officially measured, a yacht shall not make alterations in her sail plan, without written notice to the Regatta Committee, specifying the changes that have been made and embodying a request for remeasurement.*

These two sections are embodied in the rules to encourage fair sailing and manly sportsmanship. They are intended to stop sharp practices and prevent unfair advantages being taken. When a yacht is disqualified by the Committee, the grounds on which the disqualification is based should be clearly stated in writing. The reasons should be made known, both for cases of appeal and for instruction in future races.

4. *The Regatta Committee shall without a protest disqualify any yacht, should they know prior to the conclusion of the race that she has committed a breach of these Rules.. They may disqualify any yacht for a breach of these Rules should such breach be brought to their attention in writing prior to 6 P.M. of the (week) day following the race.*

Should a gross breach of these Rules be proved against any sailing master, he may be disqualified by the Regatta Committee for such time as the Regatta Committee may think fit, from sailing in any race held by the Club.

This section states that the "Committee shall without a protest disqualify," and has led to some misunderstandings. Some racing men imagine that the Committee sees every incident that occurs and is able to judge of its merits. As a matter of fact, a yacht may make a maneuver, the exact reason for which is not clear to the

Committee. A maneuver may be so slight as not to be noticed by the Committee. A Committee sees the yachts from one angle of view, and is not always in a position to judge the facts fairly without the aid of those sailing on the respective yachts.

In certain cases, a yacht's rights can only be protected by protest. In such cases, the Committee could not disqualify without a protest being filed. Committees are ready to disqualify for breaches of the rules which are too apparent to let pass, but owners should not rely upon a Committee to protect their rights, when they are unwilling to act for themselves.

When a yacht feels that it has been injured by another yacht, it is the duty of the former to bring the matter to the attention of the Committee.

Fouls should be avoided. When one yacht approaches another so as to cause a risk of a foul, a wrong may be done just as much as if the yachts had actually collided. What is meant by a "risk" must be determined by an establishment of the facts, remembering always that safety shall be paramount.

Before disqualifying any yacht without a protest, the Committee should hold a hearing, and let the yacht explain its action, unless the breach of the rules was beyond all peradventure of discussion, like fouling the Committee boat, actual collision on port tack, or doing something for the purpose of cheating. When protests are filed, the Committee should always give both yachts a chance to express their views and opinions before rendering a decision, unless both yachts expressly waive this privilege.

The last clause of this section was inserted that a Committee could have power of holding professional

sailing-masters responsible, should they try to win by sharp practices. This provision became necessary, because prize money is given to crews, and because many yachts are raced by professional skippers for owners who are not familiar with the rules and racing customs.

RULE XX

Award of Prizes

1. The owner of a winning yacht, or his representative on the yacht during the race, shall, before the awarding of prizes, file with the Regatta Committee a declaration that all the rules and regulations were complied with.

2. A prize shall be awarded to that yacht in each class which makes the best corrected time over the course.

3. If a winning yacht be disqualified the prize shall be awarded to the yacht making the next best corrected time over the course.

Prizes are seldom awarded until after the close of the yachting season, namely, the first day of November. This is done to comply with the requirement, under "Certificates of Measurement," that an error in measurement, discovered at any time prior to the first day of November, shall be corrected; and the results of that season's races made to conform to the correct measurement.

"Dead heats" or ties occasionally occur in yachting. In such cases it is best, if possible, to divide the prize, because it is often difficult to arrange to sail off the tie, and because the race cannot be sailed again under like conditions. If the prize is a cup, or other trophy, which cannot be divided, there is no choice except another race

between the yachts sailing the dead heat. If the yachts can mutually agree, the winner could be decided by lot or by ballot, but a Committee cannot, under the Rules, insist on a choice being made in this manner.

A Committee may not select one of the yachts as the winner, by giving consideration to any matter that was not mentioned in the conditions for the race. It once happened that two yachts tied in "points" for a cup, and the Committee in charge decided that the yacht which had sailed the races in the shorter aggregate elapsed time was the winner. As this condition had not been mentioned prior to the races, the Committee assumed a responsibility beyond its power. The yachts might have mutually agreed on the winner by lot, or the Committee might have divided the prize. Failing these solutions, the race should have been resailed.

RULE XXI

Suspension of Rules

RULE XXII

Amendments

These Rules, governing suspension and amendments, vary, according to the requirements of the several clubs.

CHAPTER V

Instructions to Measurer

WHEN the Racing Rules were discussed and amended in October, 1912, at a conference of Yacht Clubs and Yacht Racing Associations, a set of Instructions was prepared, with the object that all Measurers should make their measurements as nearly alike as possible.

Where scantling restrictions are in force, the Measurer, before issuing his certificate of Measurement, should see that such restrictions have been complied with. Thus, it was found that not one competitor for the Manhasset Cup Match, in 1912, was built according to the scantling rules of the Yacht Racing Association of Long Island Sound, although in some cases the differences were only of minor importance. The club, defending the cup, waived all scantling restrictions at the last minute, while the yachts were assembled at the starting line, by availing itself of the mutual agreement clause in the deed of gift, and made it possible to sail the match. Otherwise, the Race Committee would have been obliged to call the match off.

Note. Numbers refer to corresponding marginal numbers in Rules of Measurement, Rule II., Chapter IV.

L. W. L. MARKS.

Before issuing the certificate of measurement the Measurer shall personally inspect the yacht when afloat and shall see

I

that the actual water line is parallel to the established plane and that both side marks are cut by the surface of the water. He may require such changes in the position of the ballast or equipment as are necessary to satisfy these conditions.



- 2 The bow and stern marks shall be four inches long on the lower edge.
- 3 Yachts shall be required to satisfy rule under all conditions.
- 4 **CORRECTNESS OF MARKS.**

Before making the hull measurements, the Measurer shall test the bow, stern, and side marks which indicate the "established plane" on the hull, to see if they lie in one plane. He shall also see that the marks conform with the rules as regards shape and size and that they are permanent and distinctive in color (black or red on white, white on black, etc.). No certificates shall be issued until the marks satisfy all requirements.

- 5 Changes must have been made before filing of notice. L.W.L.
- 6 The L. W. L. shall be measured by deducting from the overall length the length of overhangs. Overall length and overhangs shall be measured as follows:

(a.) Overall Length. The overall length shall be measured along a line above the deck, parallel to the "established plane," between perpendiculars to that plane at the foremost

point of the hull and at the aftermost point, exclusive of the rudder and rudder post. The precise points to which the measurement is taken shall be marked by the Measurer with tacks or some other permanent mark and a memorandum of the location of such marks shall be made and kept by the Measurer.

(b.) Load Water-Line Overhang Deductions. The L. W. L. overhang length deductions shall be measured from the above perpendiculars to the points farthest forward and farthest aft where the lower edges of the marks indicating the "established plane" cut the contour of the stem and stern.

Including bridging of concavities, as described in the fourth paragraph following. 7

Including bridging of concavities as described in the second paragraph following. 8

See note 7. 9

The center of such straight line shall be in the line of measurement. 10

Sail Area

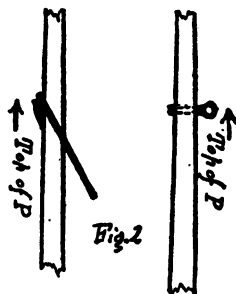
Measurement shall be taken to the extreme outboard end of boom, including fittings or ornamental caps; or, in the case of any device or extension by means of which the outhaul may be increased beyond the end of the spar, to the extreme possible point of outhaul device. 11 B.

(a) The gaff shall be shoved forward so that the tongue or jaws in case of metal jaws, shall be resting snug against the mast. 12 G.

(b) The outboard end shall be determined as specified for B.

(a) The upper point of measurement shall be the 13 P.

higher of the following points: the top of the highest sheave in the mast or topmast or the highest juncture of the eyebolts (center of eye) (Fig. 2) or pennants (lower side of



pennant on opposite side of mast from block) (Fig. 2.) of the halyard blocks—only such sheaves and blocks as are used to set the sails to which this section refers being considered.

- 14 (b) The “upper side of boom” shall be taken to mean the fair line of the top of the boom as determined by a straight batten at least five feet in length.

- 15 If a saddle be used instead of a goose-neck, the lower point of measurement shall be the top of the boom when resting on the saddle.

- 16 H. (a) If the black band be not in place at the time of measurement the Measurer may assume the upper point of measurement on a horizontal line through the upper inside edge of the throat cringle, or above if desired by the owner or his representative, but shall plainly indicate on the mast with a tack or by some other distinctive mark the position of the lower edge of the black band corresponding to this point. No certificate shall be issued until the Measurer is satisfied that this band is in place.

(b) By throat cringle is meant upper inside edge of 17
same.

To be measured when hauled hard taut by hand. 18 T.

The distance between the masts shall be measured in 19 B,
a line parallel to the established plane at the same height
as the fore-boom.

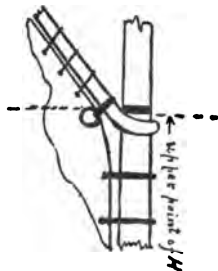


Fig. 3

The upper point of measurement shall be taken as for 20 P,
P.

(a) For upper point of measurement see P. 21 P₂

(b) "The center of the mast" is equivalent to the center- 22
line of the yacht.

Total Area.

In the case of a forward or jibstay strut the area of the 23
"fore-triangle," mentioned in the rule, means the area
obtained by the formula:

$$\frac{P_2 \times J}{2}$$

The area of a club topsail shall be the area of the triangle 24
formed by the three sides of the sail, such measurements
to be taken from the sail when dry and stretched hard taut
by hand. The area of the working topsail or jib-header

mentioned is the area obtained from the triangle formed by G, P-H, and T.

25 "Established L. W. L." without corrections for concavities.

26 Cross-sections below "established plane."

27 Added to the "measurement."

28 All measurements shall be in feet and decimals thereof. All decimals beyond the second place shall be disregarded. Measurements of the hull which are taken when the yacht is afloat shall be made only when the weather conditions are suitable in the opinion of the Measurer.

29 (1) In yachts rating 46 feet and over the Measurer may accept, save in case of protest of this factor, the designers' certificate for the quarter-beam length of a yacht for the established load water-line plane, data for determining which have been taken by the Measurer and furnished the designer.

(2) Quarter-beam length shall be measured by deducting from the overall length the length of quarter-beam overhangs.

(a) Overall length to be measured as specified in Section 6 of these Instructions.

(b) Quarter-beam overhang deductions shall be measured with a wooden Y-shaped instrument or calipers so constructed with vertical rods at the tips of the Y that their upper points can be set one-half the load water-line breadth apart (symmetrically with respect to the stem of the Y) at a distance above the water, when the instrument is afloat, equal to one-tenth of this breadth with the necessary correction for any difference between the established plane and the actual plane of flotation. With the instrument so set and afloat, measure at the bow the distance in a fore and aft direction between a plumb line suspended from the for-

ward point of overall measurement to the center of the line joining the upper points of the vertical rods when in contact with the hull on both sides. Determine the stern overhang in a similar manner.

I. Personal Disabilities of Measurers

Measurers shall not measure:

(1) *Yachts which they have themselves designed or built, or in the construction or alteration of which they have in any respect taken part.* 30

(2) *Yachts which have been built by firms in which they have a business interest.*

(3) *Yachts of which they are themselves the owners or part owners.*

Marginal References 11 and 12

There have been some criticisms of the definition of the outboard end of a spar, as for example, of the boom. The "Instructions" state that this measurement should be made to the extreme end, including fittings or ornamental caps. This includes any crown on the end of the boom, and certainly carries the measurement beyond the point to which the sail is actually hauled. There is ground for these criticisms as far as they refer to ornamental caps and to the crown, but it would not be safe, as has been suggested by some designers, to stop the measurement at the farthest point to which the outhaul device might carry the corner of the sail, as this is something which is easy of alteration. A well-known Measurer of an important club believes that it is not wise to diverge from the fundamental principle of charging the yacht with all the sail area that could *possibly* be placed upon definite unchangeable spars.

Marginal References 18 and 24

The measurements of the sides of the topsail are liable to variation, as the sail is to be measured "when dry and stretched hard taut." What is meant by "taut"? Some Measurers use a pull of 100 pounds on large sails. If two sides could be measured from the spars, the luff, and the foot, it would only leave the after leeches of the topsails to be measured from the canvas. This would largely obviate errors due to weather conditions and to new or unstretched sails.

Marginal Reference 29

The quarter-beam length measurement is always a difficult measurement to take from an actual yacht. It frequently happens that the water is not sufficiently quiet to enable a Measurer to secure this length, hence delay and expense are incurred.

As draft and displacement may be taken from the designer's drawings, it seems as if the quarter-beam length also could be so taken. For races of international importance and in all cases of doubt or protest, the quarter-beam length should be taken from the yacht's hull, but it seems an unnecessary refinement to require it to be always taken from the hull of yachts under 46 feet rating.

CHAPTER VI

Methods of Scoring Points

It is often desirable to arrange for a series of races between yachts, and to determine the winner as the yacht obtaining the highest record according to some method of scoring points. This is especially desirable with races in one-design and restricted classes.

One of the earliest of such methods was to award to each yacht one point for every yacht she defeated in a race of the series. The weakness of this simple method was that a yacht might win one race of the series against a large fleet, and thus receive a large score, which would make it extremely difficult, even if not impossible, for any other yacht to equal, if the other races had but few starters.

In order to encourage the yachts to start in as many races of the series as possible, a premium of one additional point was added for entry. As yachts would enter and then not finish, this premium was restricted to those yachts that actually started and finished.

None of the methods now in vogue truly records the relative merits of the several competing yachts, but they do give an order of merit. In other words, too much consideration should not be given to the relative values of the figures or percentages of the scores. The figures

or percentages could be used to better advantage to record the order; thus, the yacht having the highest score, or percentage, would be the winner; the one having the next highest, the second; and so on down the list.

The methods used most can be described as follows:

I. The method of scoring, used by the New York Yacht Club in its series of races for the N. Y. Y. C., "Thirties" in 1907 and 1908, was:

"Each yacht will be credited with as many points as the number of yachts she defeats, with one point added for starting. One extra point will be awarded the winner of each race.

"The number of defeated yachts will be figured on the largest number starting in any one race.

"A yacht that starts and does not finish will not receive a point for starting, but will be counted as a defeated yacht in awarding points to the other yachts.

"The awarding of points for the series will be based on the races named before the opening of the yachting season."

The difficulty, caused by great variations in the number of starters, was corrected by counting as defeated yachts, in every race, the largest number that occurred in any race of the series.

II. The extra point for winning was considered by many as being too large a premium, and hence is omitted in this second method of scoring, which otherwise is similar to Method I.

This is the method that has been used by the Larchmont Yacht Club during Race-Week in its series racing, and also was used by the American Yacht Club for its Sonder Class races in 1914.

III. A third method of scoring is to allow points only to the first three yachts finishing in each race; thus, the winner is awarded five points, the second three points, and the third one point. If only three start, the winner receives three points, the second one point, and the third no point. If only two start, the winner receives one point. A premium point, as before, is awarded to all for starting and finishing. This method obviously gives a large premium on good finishes.

IV. Under the rules for the championship medal of the Yacht Racing Association of Long Island Sound, the following method of scoring is used:

"A schedule of championship races for the series is published before the yachting season opens.

"Each yacht competing in a championship race will be credited with as many points as the number of yachts she defeats, with one point added as a premium for starting. A yacht that starts and does not finish will receive no point for starting, but will be counted as a defeated yacht in the awarding of points to yachts that complete the race.

"In order to qualify for the championship a yacht must start on at least one-half the race days on which races are given for her class. A sail-over will be counted as a start, but no point will be awarded therefor.

"The championship record of a yacht will be the percentage which the total number of points to her credit at the end of the season bears to the total number of points, she would have had, if she had won every race in which she started.

"A race postponed or resailed must not be sailed on any race day named in the Association schedule.

“‘Ties,’ if any, will be sailed off at a time and place to be designated by the Executive Committee.”¹

V. A very interesting method of scoring is used by the yacht clubs located east of Cape Cod. It is as follows:

Each yacht will be credited with points according to the following schedule:

Divide the figure 100 by the number of yachts starting in each race, and obtain the quotient.

The winner will be credited with 100; the second with 100 less the quotient; the third with 100 less twice the quotient; the fourth with 100 less three times the quotient; and so on. The last yacht will be credited with the quotient.

A yacht that starts and does not finish, or is disqualified, will not receive any points, but will be counted as a starter.

At the conclusion of the series, each yacht's points will be added and divided by her number of starts to obtain her average. The least divisor shall be two-thirds² the number of scheduled races.

Each yacht's standing is in the order of the average thus computed.

As a concrete example and for the purpose of comparison of these different systems of scoring, take the series for the championship of Massachusetts Bay, sailed in 1914.³ Eight yachts, designated by the letters A to H inclusive, completed a series of twenty-five races. There

¹ Of the Yacht Racing Association of Long Island Sound.

² Two-thirds is sometimes made three-quarters.

³ For description, see *Yachting*, December, 1914.

were twenty-six races on the schedule, but in one there were no starters. The yachts were all in the same restricted class, although of different designs. In the first race, only one started and finished.

The numerical order in which the yachts finished each race is given in Table I. The results of the methods of scoring above described are given in Tables II. to VI., inclusive. A summary of the results, in numerical order, is given in Table VII.

TABLE I
Numerical Order of Finish

	YACHTS							
	A	B	C	D	E	F	G	H
1st Race	—	—	—	1	—	—	—	—
2d "	3	4	—	1	—	2	—	—
3d "	1	2	—	3	—	4	—	—
4th "	2	3	—	1	5	4	—	—
5th "	2	1	—	3	—	4	—	—
6th "	4	1	—	3	—	2	—	—
7th "	3	1	—	—	—	2	—	—
8th "	—	1	—	—	—	2	—	—
9th "	—	—	—	2	—	1	—	—
10th "	2	1	4	3	—	5	6	—
11th "	4	3	2	1	5	7	6	—
12th "	3	4	1	5	7	2	6	—
13th "	3	—	1	—	5	2	4	—
14th "	Dis.	4	1	3	6	2	5	7
15th "	2	1	7	3	—	5	6	4
16th "	5	7	1	3	—	4	6	2
17th "	1	Dis.	—	4	—	2	3	—
18th "	2	3	—	1	—	4	5	—
19th "	3	1	—	2	—	4	—	—
20th "	4	3	—	2	—	1	—	—
21st "	Dis.	1	—	3	—	2	—	—
22d "	2	—	—	—	—	1	—	—
23d "	3	4	—	1	—	2	—	—
24th "	1	2	—	4	—	3	—	—
25th "	2	—	—	1	D. N. F.		—	—
26th "	—	—	—	—	—	—	—	—

TABLE II

Points by Method I

	YACHTS							
	A	B	C	D	E	F	G	H
1st Race	—	—	—	9	—	—	—	—
2d "	6	5	—	9	—	7	—	—
3d "	9	7	—	6	—	5	—	—
4th "	7	6	—	9	4	5	—	—
5th "	7	9	—	6	—	5	—	—
6th "	5	9	—	6	—	7	—	—
7th "	6	9	—	—	—	7	—	—
8th "	—	9	—	—	—	7	—	—
9th "	—	—	—	7	—	9	—	—
10th "	7	9	5	6	—	4	3	—
11th "	5	6	7	9	4	2	3	—
12th "	6	5	9	4	2	7	3	—
13th "	6	—	9	—	4	7	5	—
14th "	0	5	9	6	3	7	4	2
15th "	7	9	2	6	—	4	3	5
16th "	4	2	9	6	—	5	3	7
17th "	9	0	—	5	—	7	6	—
18th "	7	6	—	9	—	5	4	—
19th "	6	9	—	7	—	5	—	—
20th "	5	6	—	7	—	9	—	—
21st "	0	9	—	6	—	7	—	—
22d "	7	—	—	—	—	9	—	—
23d "	6	5	—	9	—	7	—	—
24th "	9	7	—	5	—	6	—	—
25th "	7	—	—	9	—	0	—	—
26th "	—	—	—	—	—	—	—	—
Totals	131	137	50	146	17	143	34	14

TABLE III

Points by Method II

YACHTS								
	A	B	C	D	E	F	G	H
1st Race	—	—	—	8	—	—	—	—
2d "	6	5	—	8	—	7	—	—
3d "	8	7	—	6	—	5	—	—
4th "	7	6	—	8	4	5	—	—
5th "	7	8	—	6	—	5	—	—
6th "	5	8	—	6	—	7	—	—
7th "	6	8	—	—	—	7	—	—
8th "	—	8	—	—	—	7	—	—
9th "	—	—	—	7	—	8	—	—
10th "	7	8	5	6	—	4	3	—
11th "	5	6	7	8	4	2	3	—
12th "	6	5	8	4	2	7	3	—
13th "	6	—	8	—	4	7	5	—
14th "	0	5	8	6	3	7	4	2
15th "	7	8	2	6	—	4	3	5
16th "	4	2	8	6	—	5	3	7
17th "	8	0	—	5	—	7	6	—
18th "	7	6	—	8	—	5	4	—
19th "	6	8	—	7	—	5	—	—
20th "	5	6	—	7	—	8	—	—
21st "	0	8	—	6	—	7	—	—
22d "	7	—	—	—	—	8	—	—
23d "	6	5	—	8	—	7	—	—
24th "	8	7	—	5	—	6	—	—
25th "	7	—	—	8	—	0	—	—
26th "	—	—	—	—	—	—	—	—
Totals	128	124	46	139	17	140	34	14

TABLE IV
Points by Method III

YACHTS								
	A	B	C	D	E	F	G	H
1st Race	—	—	—	1	—	—	—	—
2d "	2	1	—	6	—	4	—	—
3d "	6	4	—	2	—	1	—	—
4th "	4	2	—	6	1	1	—	—
5th "	4	6	—	2	—	1	—	—
6th "	1	6	—	2	—	4	—	—
7th "	1	4	—	—	—	2	—	—
8th "	—	2	—	—	—	1	—	—
9th "	—	—	—	1	—	2	—	—
10th "	4	6	1	2	—	1	1	—
11th "	1	2	4	6	1	1	1	—
12th "	2	1	6	1	1	4	1	—
13th "	2	—	6	—	1	4	1	—
14th "	0	1	6	2	1	4	1	1
15th "	4	6	1	2	—	1	1	1
16th "	1	1	6	2	—	1	1	4
17th "	6	0	—	1	—	4	2	—
18th "	4	2	—	6	—	1	1	—
19th "	2	6	—	4	—	1	—	—
20th "	1	2	—	4	—	6	—	—
21st "	0	6	—	2	—	4	—	—
22d "	1	—	—	—	—	2	—	—
23d "	2	1	—	6	—	4	—	—
24th "	6	4	—	1	—	2	—	—
25th "	2	—	—	4	—	0	—	—
26th "	—	—	—	—	—	—	—	—
Totals	56	63	30	63	5	56	10	6

TABLE V
Points by Method IV

YACHTS								
	A	B	C	D	E	F	G	H
1st Race	—	—	—	0	—	—	—	—
2d "	2	1	—	4	—	3	—	—
3d "	4	3	—	2	—	1	—	—
4th "	4	3	—	5	1	2	—	—
5th "	3	4	—	2	—	1	—	—
6th "	1	4	—	2	—	3	—	—
7th "	1	3	—	—	—	2	—	—
8th "	—	2	—	—	—	1	—	—
9th "	—	—	—	1	—	2	—	—
10th "	5	6	3	4	—	2	1	—
11th "	4	5	6	7	3	1	2	—
12th "	5	4	7	3	1	6	2	—
13th "	3	—	5	—	1	4	2	—
14th "	0	5	8	6	3	7	4	2
15th "	6	7	1	5	—	3	2	4
16th "	3	1	7	5	—	4	2	6
17th "	5	0	—	2	—	4	3	—
18th "	4	3	—	5	—	2	1	—
19th "	2	4	—	3	—	1	—	—
20th "	1	2	—	3	—	4	—	—
21st "	0	4	—	2	—	3	—	—
22d "	1	—	—	—	—	2	—	—
23d "	2	1	—	4	—	3	—	—
24th "	4	3	—	1	—	2	—	—
25th "	2	—	—	3	—	0	—	—
26th "	—	—	—	—	—	—	—	—
Totals	62	65	—	69	—	63	—	—
Max. Points	106	98		98		110		
Percentage								
Rating	58.5	66.3		70.4		57.2		

TABLE VI
Points by Method V

YACHTS								
	A	B	C	D	E	F	G	H
1st Race	—	—	—	1,000	—	—	—	—
2d "	500	250	—	1,000	—	750	—	—
3d "	1,000	750	—	500	—	250	—	—
4th "	800	600	—	1,000	200	400	—	—
5th "	750	1,000	—	500	—	250	—	—
6th "	250	1,000	—	500	—	750	—	—
7th "	333	1,000	—	—	—	666	—	—
8th "	—	1,000	—	—	—	500	—	—
9th "	—	—	—	500	—	1,000	—	—
10th "	833	1,000	500	667	—	333	167	—
11th "	571	714	857	1,000	429	143	286	—
12th "	714	571	1,000	429	143	857	286	—
13th "	600	—	1,000	—	200	800	400	—
14th "	Dis.	625	1,000	750	375	875	500	250
15th "	857	1,000	143	714	—	429	286	571
16th "	429	143	1,000	714	—	571	286	857
17th "	1,000	Dis.	—	400	—	800	600	—
18th "	800	600	—	1,000	—	400	200	—
19th "	500	1,000	—	750	—	250	—	—
20th "	250	500	—	750	—	1,000	—	—
21st "	Dis.	1,000	—	500	—	750	—	—
22d "	500	—	—	—	—	1,000	—	—
23d "	500	250	—	1,000	—	750	—	—
24th "	1,000	750	—	250	—	500	—	—
25th "	666	—	—	1,000	—	1,000	—	—
26th "	—	—	—	—	—	—	—	—
Totals	12,853	13,753	5,500	14,924	1,347	14,024	3,011	1,678
Average	584.23	687.65	343.75	710.66	84.19	584.33	188.18	104.88

TABLE VII
Summary of Results

Method of Scoring	YACHTS							
	A	B	C	D	E	F	G	H
No. I	4	3	5	1	7	2	6	8
" II	3	4	5	2	7	1	6	8
" III	3*	1*	5	1*	8	3*	6	7
" IV	3	2	—	1	—	4	—	—
" V	4	2	5	1	8	3	6	7

It will be noticed that the results obtained by Methods III., IV., and V. are very nearly the same. In Method IV., the condition that a yacht must start in fifty per cent. of the schedule races prevented four of the yachts from receiving any score, and in Method III. there was a tie for first place.

By Method I., the same yacht was the winner as in III., IV., and V., but the order of merit among the other yachts was not the same. Method II. produced an order that differed radically from all the others.

The winner of a point-scoring contest is *not* necessarily the fastest yacht, as the systems of scoring have been, more or less, evolved to encourage the several competitors to enter in the greatest number of races in the series.

All the systems are based on a scheme to score for either skill and speed or endurance. The various methods do not give equal values to these qualifications. Therefore, in making a selection from one of these methods, some consideration should be given to this point. In all probability, both speed and skill are more truly represented by Methods III., IV., and V.

* Yachts B and D tied, and also A and F.

When drawing up instructions for a series race, the conditions always should state, (1) how a tie will be settled; (2) whether a sail-over will be allowed, and if so, how it will be scored, and (3) what shall be the minimum number of races in the series in which a yacht must start to qualify for a final score. In practice, this minimum is usually between fifty and seventy per cent. When the contest is for a more conclusive test of skill, it would be well to state another condition, (4) the minimum number of starters in a race in order that such race may count as one of the series. If this condition (4) is added, care must be taken to see that its wording does not conflict with condition (3).

CHAPTER VII

Protests and Decisions

To illustrate the practical application of the racing rules, a few words on protests and some examples would not be out of place.

When a protest is made and the written statement duly filed, the Committee should send a copy to the protested yacht and name a place and date for a hearing. There should be little delay in holding the hearing, so that the facts can be presented while fresh in memory. Occasionally, it will be found diplomatic for a Committee to postpone the hearing for some time after the occurrence, if there should be a suspicion of ill feeling between the parties. Fouls often engender ill feeling, and a lapse of time of two or three weeks may allow irritation to calm down, and pave the way for a more amicable understanding.

The Committee should arrange the hearing for a place and date as convenient as possible to all concerned. This is only common courtesy and can generally be done. When convened, the Committee should conduct the proceedings in an orderly manner, and not allow the parties to all talk at once.

The protest should be first read by the Chairman. (In all cases, a copy of the protest should be sent to the

protested yacht as soon as received.) Then, the owner of the protesting yacht and any others whom he cares to ask, should be allowed to testify but each in turn. After this, the protested yacht owner and any others whom he desires to have heard, should be asked to reply, in rebuttal. The Committee should require the parties to submit sketch diagrams, and may ask questions of any witness in order to ascertain the facts.

The hearings should be open to both parties, who should be allowed to hear and reply to any relevant testimony offered. All irrelevant testimony should be excluded, and the testimony kept to the point or points at issue. Any witness, desiring to be heard, should have a hearing, provided he so indicates before the proceedings are closed.

There can be no objection to testimony given by professionals. The Committee should be careful to allow all proper testimony to be heard, or be exposed to the charge that the hearings were not full, and on that account have their decision questioned.

When all testimony written or oral, has been presented, the Committee should go into executive session, and discuss and determine its decision in private. The decision should be in writing and copies sent to each party.

The decision should state the grounds on which it is based, and great care should be taken to see that it is based on the *facts*. There are good reasons for this, because one of the yachts may desire to appeal and could not well do so unless the grounds for the decision were stated, and also because these decisions have considerable instructive value to all interested in yacht racing. Decisions should never be given offhand, or

without due deliberation. If a frivolous protest is received, a Committee should treat it seriously, as by so doing, and by publicity, foolish claims are best prevented.

It sometimes happens that a yacht protests under one rule, while the evidence shows that some other rule was really infringed. A Committee should take cognizance of this fact, and base its decision on the testimony, since in Rule XIX., Clause 2, it is clearly stated, that a yacht shall be disqualified if she neglects *any* of the rules. The failure to properly word a written protest should not be allowed to prejudice the case of a protesting yacht. For a similar reason, ignorance of the rules should not be accepted as an excuse.

The following form for a letter of protest could be used with advantage.

Letter of Protest

Date.....

To the Race Committee,
—— Yacht Club.

DEAR SIRs:

Schooner (Yawl or Sloop) "A" wishes to protest Schooner (Yawl or Sloop) "B" in race of ——, 191—, sailed under the auspices of the —— Yacht Club.

The facts in the case are:
.....
.....
.....

The positions of the yachts, direction of wind and tide are shown on the enclosed diagram.

"A," therefore, protests "B" under Racing Rule——

Very truly yours,

RICHARD ROE,

Owner of "A."

A few protests, with the testimony and the Committee's decisions, have been selected to illustrate the application of several of the rules. The sequence of the protests has been arranged to correspond to the order of the rules under which the claims were made, rather than according to dates.

CASE I

PROTEST UNDER RULE V., SECTION 7

New York Yacht Club

"15th June, 1906.

"The Regatta Committee,
"New York Yacht Club.

"DEAR SIRs:

"I beg to protest schooner *Invader*, New York Yacht Club, for non-observance of Racing Rule VI., Paragraph 7.¹ She was carrying the Larchmont Yacht Club flag at the fore truck, private signal at main truck, and Yacht Club ensign at the peak, and was without a number, leading us to believe she was not in the race. Upon a request from *Vigilant* to give room, we were informed that she was in our race. Had we known of her being a contestant we could have saved considerable of our time.

"Yours truly,

"Owner, yacht *Vigilant*."

When *Vigilant* was informed that *Invader* did not finish the race and also that it had made a late entry at the starting line, *Vigilant* withdrew the protest.

As the complaint of *Vigilant* was well founded, the Committee sent the following letter to *Invader*.

¹ The rule referred to in the letter is now Rule V., Section 7.

"27th June, 1906.

"Owner, Yacht *Invader*.

"DEAR SIR:

"Referring to our notice to you of June 23d, notifying you that *Invader* was protested by *Vigilant* in the Race for the Spring Cups June 14th, we now take leave to inform you that the protest has been withdrawn by Captain of *Vigilant*.

"The cause of the protest was violation of Racing Rule VI., Paragraph 7.¹

"As *Invader* made a post entry, which was accepted by the other schooners in the class with the approval of the Regatta Committee, the question as to number on the mainsail was waived.

"The *Invader*, however, carried another club's pennant at the fore, her private signal at the main, and her yacht ensign at the gaff. *Vigilant* not being aware of the acceptance of your post entry deemed that *Invader* was not in the race on account of noticing the flags being set, especially another club's pennant in a New York Yacht Club event.

"*Vigilant*, presuming that *Invader* would get out of her course, took no steps to better her position and claimed loss of several minutes on this account.

"As the owner of Yacht *Vigilant* has withdrawn his protest, nothing further will be done in the matter, but we request you to notify your sailing master, that in all future events to comply with the Racing Rules as far as possible.

"Yours respectfully,

"REGATTA COMMITTEE."

¹ The rule referred to in the letter is now Rule V., Section 7.

CASE II

PROTEST UNDER RULE VI

New York Yacht Club

(Not dated)

"The Regatta Committee,
New York Yacht Club.

"GENTLEMEN:

"I request that your Committee decide the question as to whether the *Effort* is sailing in cruising trim. I prefer not to enter a formal protest, but if your Committee cannot entertain the matter otherwise please consider this letter as a protest that in my judgment the *Effort* is not conforming to the spirit and intention of Rule VII. of the Racing Rules of the Club.¹

"Yours very truly,

"Owner, Yacht *Irolita*."

The Committee assembled on board *Effort* after receiving this letter of protest, and carefully examined the deck and cabin fittings, as well as the anchors, cables, and lifeboat.

The *Effort* was designed and built for a racing yacht rather than a cruising yacht. The Committee found that there were accommodations for all the paid hands and that the crew lived on board; that the fittings, anchors,

¹ The rule referred to in the letter is now Rule VI.

etc., were as light as could be made consistent with safety, and that the spirit of the rule was complied with.

The Committee replied to the protest as follows:

"10th August, 1906.

"Owner, Yacht *Irolita*.

"DEAR SIR:

"Replying to your protest, undated but received by the Committee on 6th August, claiming that *Effort* is not in cruising trim under Racing Rule VII.,¹ we beg leave to state that we have been on board *Effort* and that we find *Effort* to be in cruising trim.

"Yours respectfully,

"REGATTA COMMITTEE."

¹The rule referred to in the letter is now Rule VI.

CASE III

PROTEST UNDER RULE VIII

American Yacht Club

During the seasons of 1912 and 1913, the American Yacht Club gave a series of races for a one-design class. Printed instructions regarding the course were issued. In 1913, the instructions were altered to designate one mark differently from the original. Unfortunately, one of the old instructions, by some oversight, was issued to yacht *Cynosure*.

At the time of starting, the Committee verbally called attention to the change. *Cynosure* apparently did not understand and sailed the course specified in her instructions, and was ahead when she steered for the wrong mark. The race was sailed by *Argus* with corrected instructions and *Argus* finished first.

Cynosure protested. The Committee decided as follows, after due hearing of testimony:

“Referring to the protest of *Cynosure*, on July 12, 1913, wherein *Cynosure* claimed first prize because false instructions were received from the Committee, whereby a longer course was sailed than necessary, the Regatta Committee have determined as follows:

“The yacht which came in first, having sailed the correct course, as instructed by the Committee, could not be disqualified.

"The race could not be ordered resailed, because it was fairly sailed according to instructions.

"The Committee regret that *Cynosure* did not take more active steps in proving the correctness of the verbal instructions, when it was found that these verbal instructions did not agree with the printed instructions issued.

"As the false instructions were given out by the Committee, the Committee must assume the responsibility.

"The Committee, therefore, have decided to award *Cynosure* a first prize, as being the first yacht winning over the course sailed according to instructions given to it.

"REGATTA COMMITTEE."

Note: *Argus* was also awarded a first prize.

CASE IV
PROTEST UNDER RULE VIII
New York Yacht Club

"15th September, 1910.

"Regatta Committee,
New York Yacht Club.

"DEAR SIRs:

"In the Fall Regatta of your club held to-day we protest *Cara Mia*, our other P class competitor, on the ground that she sailed inside the black buoy off Weeks' Point, Hempstead Harbor. By this move she shortened her course, and by reason of this latter fact solely she was able to finish ahead of us. Kindly inform us if her course was the proper one. We understand the rule to be that boats racing should leave channel buoys on the proper hand, *i. e.*, keep in the channel.

"Very truly yours,
"OWNER, YACHT *Windward*."

This protest arose because *Cara Mia* sailed between a Government buoy and the beach, and did not keep on the channel side. The sailing instructions did not refer to any buoys, except to those used as marks of the course. This particular buoy was not a specified mark of the course.

After full correspondence, the Committee decided as below.

"29th September, 1910.

"Owner, Yacht *Windward*.

"DEAR CAPTAIN:

"Referring to the protest of *Windward* against *Cara Mia*, dated 15th September, 1910, the Regatta Committee, at a meeting held yesterday, decided that the protest be not sustained, as no mention was made of any buoys, except the turning marks, in the sailing instructions and description of the course; and that yachts had the right to leave the buoy off Weeks' Point and other Government buoys, with the exception of the specified turning marks, on either hand.

"The delay in answering your letter was caused by the absence from the city of one of the members of the Committee.

"Very truly yours,

"REGATTA COMMITTEE."

CASE V

PROTEST UNDER RULE XII, SECTION 2, CLAUSE (A)

New York Yacht Club

"22d June, 1911.

"Regatta Committee,
New York Yacht Club.

"DEAR SIRs:

"I regret to have to protest the *Miladi* in to-day's race. When we were both on the wind, we on the starboard and they on the port tack, they forced us about in order to avoid a collision.

"Yours truly,

"OWNER, YACHT, *Dervish*."

After the letter of protest had been sent to *Miladi*, the owner testified at the hearing as follows:

"At the time when the incident occurred which prompted *Dervish* to protest *Miladi*, the yachts were approaching close-hauled with the wind on opposite sides, in the proximity of Mark 'A.' *Miladi* was on the port tack sailing westerly with the *Dervish* approaching on the starboard tack.

"The Captain of *Miladi* asked his sailing master if *Miladi* could clear *Dervish* and the sailing master replied that he felt convinced that *Miladi* could go clear.

"*Dervish* then luffed. *Miladi* went about and the end of *Miladi*'s main boom was forward of *Dervish*'s fore-

rigging—perhaps opposite the stem—and the yachts were distant from one another about 40 or 50 feet. At this instant, *Miladi* was in eye of the wind, with *Dervish* a little off the wind.

“When *Dervish* began to luff, *Dervish* was about 80 feet away from *Miladi*. While he thought, and was of the opinion, that *Miladi* would have cleared *Dervish* had *Dervish* not luffed, he willingly admitted that the clearance would have been close and that he was perfectly willing to accept the decision of the Regatta Committee should the decision be adverse to his yacht *Miladi*.

“Two gentlemen who were on board *Miladi* during the race substantiated in every essential particular the testimony of the Captain of *Miladi*.”

Dervish not being represented at the hearing, the above statement was forwarded to her owner and he replied as below.

“July 3, 1911.

“Regatta Committee,
New York Yacht Club.

“DEAR SIRs:

“Your favor of June 30th received and in reply to same would say that I think Captain of *Miladi* is mistaken in regard to the relative position of the yachts at the time I made my protest. I am quite sure that *Miladi* could not have possibly cleared me if I had continued on my course. My impression is that my bowsprit was not more than thirty feet from him and I think I would have struck him about the mainmast.

“This is the first protest that I have ever made, although I have had several provocations to do so, and I assure you that I would not protest any one, much less Captain of *Miladi* who is a good friend of mine, unless I was actually *sure* I was in the right.

“Yours very truly,

“OWNER, YACHT *Dervish*.”

The Committee decided that the right of the starboard tack must be preserved and sent the following decision.

"13th July, 1911.

"Owner, Yacht *Dervish*.

"Owner, Yacht *Miladi*.

"GENTLEMEN:

"Referring to the protest of *Dervish* against *Miladi* dated 22d June, 1911, alleging that in the race for the Spring Cups the *Dervish*, while on the starboard tack, was compelled to go about in order to avoid a collision with *Miladi* at that time on the port tack.

"The Committee has given careful consideration to the testimony presented.

"The fundamental basis of the right-of-way is that when two yachts are approaching with the wind on opposite sides the yacht with the wind on the port side shall keep clear. From the testimony submitted, it appears that *Miladi* could not have cleared *Dervish* without a risk of foul, and Rule XII., Section 2, specifically states that when a risk of fouling is involved the yacht with the wind on the port side shall keep clear.

"The protest is sustained, as the Committee find that the risk of fouling was sufficiently imminent to have justified *Dervish* in coming about.

"Yours respectfully,

"REGATTA COMMITTEE."

CASE VI
PROTEST UNDER RULE XII., SECTION 8
American Yacht Club

"3d July, 1914.

"Regatta Committee,
American Yacht Club.

"GENTLEMEN:

"I hereby protest *Okee*, for violation of Rule XII., Section 8, of Long Island Sound Yacht Racing Association, in rounding Buoy B 24½ at Woolsey's Reef as shown on accompanying diagram. *Carlita* witnessed the same and will bear out these statements.

"Yours truly,

"OWNER, YACHT *Oriole*."

"Enclosure Sketch (Figure XVI.). *Oriole* approached weather mark on starboard tack; *Okee* bore away under *Oriole's* stern; *Oriole* came about on port tack, and had altered helm for the purpose of rounding mark when *Okee* shot into the wind and called for room to *Oriole*. *Oriole* was forced to luff in order to avoid collision."

The Committee notified *Okee*, and received the following reply:

"July 27, 1914.

"Regatta Committee,
American Yacht Club.

"GENTLEMEN:

"Just had a minute here so am enclosing sketch of *Okee* and *Oriole* rounding windward mark of course.

Oriole came toward mark from the middle of Sound on her starboard tack and we came out from shore on port tack making the mark easily, in fact, we overstood it a little. We would have hit *Oriole* with our bow almost at her bowsprit had we kept on, but as we could make mark easily, we went astern of *Oriole* and kept on (a distance of two or three boat lengths) with sails full and not luffed as *Oriole* claims and rounded the mark. *Oriole*, when we passed under her stern, did not come about, but kept on for about two or more boat lengths and then bore down on the mark with sheets eased but not ahead of us (in fact, just abreast of us).

"We, of course had an overlap and being inside boat, *Oriole* had to give us room to round the mark. To show we were ahead of *Oriole*, we rounded the mark and *Oriole* being to windward could not blanket us at all. We kept ahead of *Oriole*.

"Whenever you wish the hearing, if you deem a hearing necessary, I will be only too glad to meet you.

"Yours very truly,

"OWNER, YACHT *Okee*."

The Committee then appointed a date and place for a hearing, and all parties interested were present. At this hearing the testimony showed the yachts to have been relatively as in Figure XVI., which has been drawn from the two sketches submitted.

"24th August, 1914.

"Owner, Yacht *Oriole*.

"DEAR SIR:

"Replying to your letter of 3rd July, 1914, in which *Oriole* protests *Okee* in race of same day, the Regatta Committee beg leave to reply as follows:

"After correspondence with both yachts, each filed a diagram, the main features of which were similar. A hearing of the case was held on 12th August at which testimony was taken for both yachts.

"The facts developed were, that both yachts approached the windward mark, Buoy B 24½ off Woolsey's Reef; that *Oriole* was on the starboard and *Okee* on the port tack; that *Okee* paid off and passed close under *Oriole's* stern; that *Oriole* came about on port tack; that *Okee* luffed to reach the mark; and that the yachts were over-lapping.

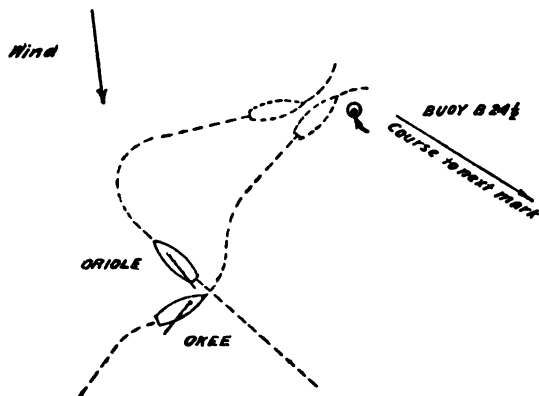


Figure XVI.

"The differences claimed were (1) that *Okee* luffed into the wind so that her sails were flapping, and (2) that *Okee* only luffed back on her course.

"The protest was founded on Rule XII., Section 8, second paragraph which reads: 'A yacht shall not, however, be justified in attempting to establish an overlap and thus force a passage between another yacht and the mark after the latter yacht has altered her helm for the purpose of rounding.'

"The claim that *Okee* attempted to establish an overlap and force a passage between *Oriole* and the mark is not well founded. It appears that *Okee* luffed as she came out under *Oriole's* stern and that *Oriole*

stood on for two or three lengths before coming about on the port tack. A yacht, forced by the starboard tack to pay off, has the right to luff back on her course when clear, and that in doing this she did not mislead or baulk *Oriole*, because it must have been expected. Both yachts admitted that *Okee* could have reached the mark without tacking, if *Oriole* had not been there.

"A yacht luffing is still on the same tack and no claim can be entertained that *Okee* attempted to alter her port tack.

"It is the opinion of the Committee that *Oriole*, from a position on weather quarter of *Okee*, established an overlap. Therefore, the first paragraph of Rule XII., Section 8, applies, namely, that *Oriole* should give the inside yacht, *Okee*, room to pass clear of the mark.

"The protest is not sustained.

"Yours respectfully,

"REGATTA COMMITTEE."

CASE VII

PROTEST UNDER RULE XII., SECTION 9

New York Yacht Club

"14th August, 1912.

"Regatta Committee,
New York Yacht Club.

"DEAR SIRs:

"I wish to protest the yacht *Elena* for violation of the Racing Rules during the race from Vineyard Haven to Newport on August 13, 1912.

"The *Elena*, which was standing along on the port tack to the northward of the Middle Ground in Vineyard Sound, forced the *Princess*, which was close hauled on the starboard tack, to come about in order to prevent a collision. The *Elena* called for sea room and ordered the *Princess* to tack. This was not necessary, as the *Elena* could have avoided the obstruction to sea room and all risk of fouling by altering her course and keeping off under the stern of the *Princess*.

"The *Elena* thus violated Section 2, Rule XII. and without due cause compelled the *Princess* to tack under Section 9, Rule XII., and is therefore subject to disqualification under Section 2, Rule XIX.

"Yours very truly,

"OWNER, YACHT *Princess*."

This letter of protest was forwarded to *Elena*, and the following answer was received:

"31st August, 1912.

"Regatta Committee,
New York Yacht Club.

"GENTLEMEN:

"Replying to protest made by *Princess* August 14, 1912, claiming that *Elena* in the race from Vineyard Haven to Newport, August 13, 1912, violated Section 2, Rule XII. and without due cause compelled *Princess* to tack under Section 9, Rule XII.

"I wish to say that *Elena* was justified in requesting *Princess* to tack under Section 9, Rule XII.

"In explanation would say that we were making very short tacks, working the Middle Ground as close as possible to keep out of the easterly running current.

"At the time we hailed *Princess*, we had just come about on the port tack which we were obliged to do to avoid going ashore on the Middle Ground. Just as we got trimmed down we saw we could not clear *Princess*, in fact had she kept on she would have struck us a little forward of the beam. We were too close to the Middle Ground to immediately tack again, drawing twenty-one feet of water, and as we did not have room to swing under her stern without fouling her, we were justified in requesting *Princess* to tack. This request was immediately complied with, and after we had stood on two or three minutes we immediately tacked to permit *Princess* to stand in and keep out of the current, should she so elect.

"I beg to submit a sketch showing position of yachts.

"Respectfully submitted,

"OWNER, YACHT *Elena*."

At the hearing, the following facts were conceded (see Figure XVII.):

1. The wind was substantially W. S. W.
2. The current was running to the eastward.
3. The location of the alleged foul was east of can buoy 25½.

4. The yachts were traveling about 6 to 6½ knots.
5. The positions of the other yachts in the squadron had no influence on the alleged foul.

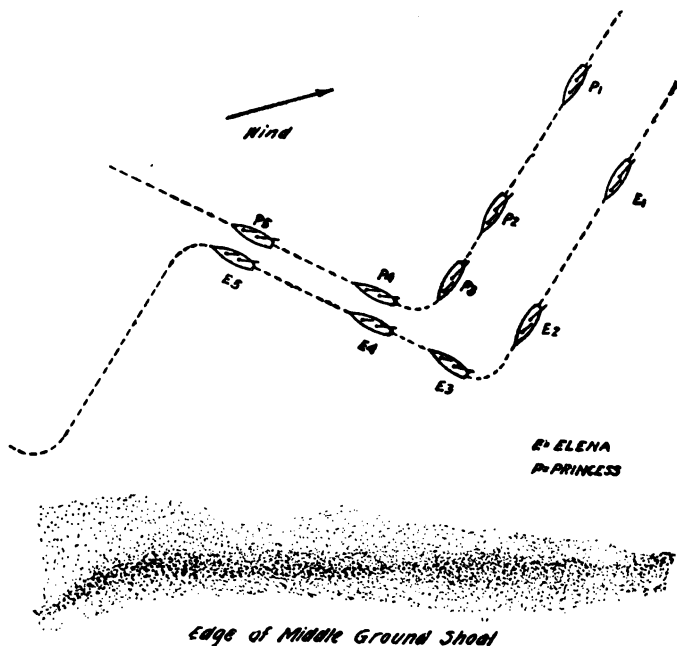


Figure XVII.

Each party testified in brief as follows:

Princess described the positions of the yachts as they approached one another, and stated that they were distant from Middle Ground shoal, when *Princess* was forced to tack, by about 1000 to 1500 feet.

Elena generally agreed to the described position of the yachts.

Princess stated that when *Elena* tacked to port before the alleged foul, the yachts were at least three boat lengths apart.

Elena stated the yachts were not over three lengths apart and were too close for her to safely maneuver under the stern of *Princess*. *Elena* was compelled to ask for water.

Princess stated that when *Elena* first tacked, she headed so as to strike *Princess*. *Elena* then pointed higher, so that *Princess* would have struck *Elena*. *Elena* agreed with this statement, but insisted that the whole question resolved to "one of room."

Captain of *Irolita*, at request of Captain of *Princess*, stated that *Irolita* was astern of *Elena* by some 200 yards; that *Elena* sailed on port tack for about 200 yards before the alleged foul took place; that *Elena* could have passed under the stern of *Princess* or could have tacked to starboard and stood in toward Middle Ground.

Elena did not agree with Captain of *Irolita*, and further stated that *Elena* continued on port tack for about 2½ minutes so as to work off the shoal before going about on starboard tack, so as to give *Princess* room. *Elena* stood in toward the shoal on starboard tack for about 2 or 2½ minutes (about ¼ mile).

A guest on *Princess*, at request of Captain of *Princess*, stated that the distances between the yachts were greater than as testified; that *Elena* could have passed under stern of *Princess*, and that *Princess* asked *Elena* to do so.

The club members on *Elena* stated that they did not hear such a hail.

As there was no other evidence offered, the minutes

were read, and the Committee adjourned the hearing and went into executive session.

After carefully considering the testimony the Committee reached the following opinion:

"14th October, 1912.

"Owner, Yacht *Princess*.

"DEAR SIR:

"Replying to your letter of 14th August, in which you protested *Elena* for forcing *Princess* to go about while on the starboard tack, we beg leave to transmit herein our findings.

"After hearing the testimony and after carefully considering the facts and opinions as presented by both yachts, the matter reduces to the question whether *Elena*, on the port tack, had the right to ask *Princess*, on the starboard tack, to go about in order to avoid fouling, so that *Elena* could keep clear of Middle Ground Shoal.

"The facts are that both *Elena* and *Princess* were sailing parallel courses, on the starboard tack, heading toward Middle Ground Shoal; that *Elena* came about on the port tack heading away from the shoal, the yachts then being not over three lengths apart; that *Elena* hailed *Princess* asking for room; and that *Princess* tacked at once to port, coming about under the starboard (leeward) bow of *Elena*.

"While *Elena* was on the starboard tack, heading toward the shoal, and when *Elena* had good cause to fear the risk of grounding, *Elena* should have hailed *Princess*, asking for room, and have tacked to port at as near the same time as possible with *Princess*.

"Having failed to ask for room while headed toward the shoal with only several lengths between the yachts, *Elena* lost her rights on tacking to port and heading off the shoal. *Elena* then, in order to have prevented a foul, should have either passed astern of *Princess*, or luffed into the wind, or have gone about. If one of these three conditions could not have been fulfilled,

then the forcing of *Princess* to tack was the result of the unfortunate position into which *Elena* sailed.

"The universal rule of the sea, prescribing how two vessels shall keep clear when one is on the starboard and the other on the port tack, should be inviolate, in order to prevent loss or injury to persons or property.

"The Committee find that the protest of *Princess* against *Elena* is sustained.

"Yours respectfully,

"REGATTA COMMITTEE."

CASE VIII

PROTEST UNDER RULE XII., SECTION 9 (Last Paragraph)

American Yacht Club

"July 3, 1913.

"To the Regatta Committee,
American Yacht Club.

"DEAR SIRs:

"In regard to our protest of yacht *Spatran* in your race of to-day, we beg to submit the following facts.

"We approached the starting line close hauled on the port tack, close to the buoy, *Spartan* being to weather of us and ahead. In order to kill time *Spartan* luffed and then bore off, still keeping to weather. *Iroquois* approached the same end of the line close hauled on starboard tack, forcing *Spartan* and ourselves. We hailed *Spartan* for room to tack as we could tack only by ramming her amidships, and there being no room for us to bear away under *Iroquois*' stern. *Spartan* delayed in tacking and in consequence had not filled away on starboard tack in time to enable us to clear *Iroquois*, whose port stern quarter touched our starboard (weather) stern quarter.

"Had *Spartan* tacked when first hailed there would have been no question of a foul. As it was, had we tacked we would have run her down.

"She delayed until she could clear the buoy on the starboard tack.

"Respectfully yours,
"OWNERS, YACHT *Pleione*."

At the investigation, it appeared that *Pleione* could have kept off and passed under the stern of *Iroquois II.*, if it had done so in time. *Pleione* delayed until too late. The situation is shown in Figure XVIII.

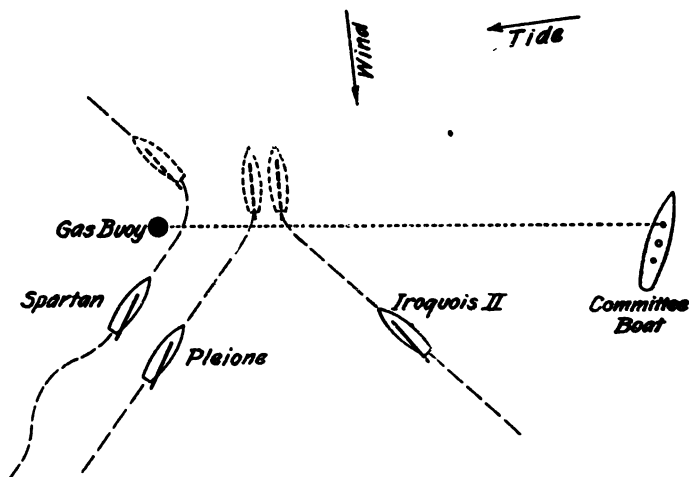


Figure XVIII.

The Committee¹ decided to act on its own initiative, under Rule XIX., in matter of interference with *Iroquois II.*, and notified both *Pleione* and *Spartan* to that effect. This protest, however, was a separate issue. *Iroquois II.* did not file any protest.

"7th July, 1913.

"Owners, Yacht *Pleione*.

"GENTLEMEN:

"The Regatta Committee acknowledges the receipt of your letter of 3d July protesting *Spartan* in race of July 3d.

¹ See Case XI.

"The Committee will notify *Spartan* and will take the matter under consideration.

"As you are aware the Committee is considering the disqualification of *Pleione* and *Spartan*, either one or both, for interfering with *Iroquois II*.

"Respectfully yours,

"REGATTA COMMITTEE."

"7th July, 1913.

"Owner, Yacht *Spartan*.

"DEAR CAPTAIN:

"The Committee is considering the disqualification of *Pleione* and *Spartan* either one or both, for interfering with *Iroquois II*. at the starting line on July 3d.

"We understand in answer to our hail, your answer to be, that you did not know *Spartan* had interfered with any yacht.

"On July 5th we received a protest against *Spartan* from *Pleione*, a copy of which is attached.

"Kindly let us hear from you if you have any explanation to make.

"There are two questions at issue: First, the disqualification by the Committee of *Pleione* and *Spartan* on the port tack, either one or both, for interfering with *Iroquois II*. on the starboard tack. Second, the protest of *Pleione* against *Spartan*.

"This protest will become void should the Committee decide the first point against *Spartan*.

"Yours respectfully,

"REGATTA COMMITTEE."

"8th July, 1913.

"REGATTA COMMITTEE,

American Yacht Club,

"GENTLEMEN:

"I beg to acknowledge receipt of your favor of the 7th instant, also a copy of a protest by owners of *Pleione* against the *Spartan* in the race of the 3d instant. In reply to the same, I will repeat the statement made

to you from the deck of the *Spartan* while you were on the Committee boat, namely, that we on the *Spartan* are entirely unconscious of having made any interference. I was sailing the *Spartan*, and we on board know nothing of any call for room by owners of *Pleione*. I thought they had plenty. When the *Iroquois* came down on the starboard tack, I of course went about, and from a racing point of view gave it ample room. A friend, who was with me, was on deck at the time and confirms these facts, as does my sailing-master.

"The *Spartan* certainly did not interfere with the *Iroquois*. Whether or not we interfered with the *Pleione* is a question that I will leave to your good judgment. She was a considerable way to leeward of us, and we heard no call for room; furthermore, if I remember correctly, I put the *Spartan* about to clear the *Iroquois* before the *Pleione* came about. However this is a pretty fine question. I was sailing my own boat, watching the *Iroquois* and the *Pleione*, and I may be mistaken.

"Yours respectfully,

"OWNER, YACHT *Spartan*.

Pleione had no right to ask *Spartan* for room, until after *Spartan* had cleared the mark, because *Spartan* had a right under Rule XII., Section 8.

"14th July, 1913.

"Owners, Yachts *Pleione* and *Spartan*.

"GENTLEMEN:

"Referring to the start of the race of 3d July, the facts as known to the Committee were:

"*Spartan* and *Pleione* approached the line on the port tack, the former to weather and somewhat ahead, but with an overlap established, and both close to the mark buoy.

"*Iroquois II.* approached on the starboard tack, and had the right-of-way.

"It was necessary for *Pleione* to keep clear of *Iroquois*

II. The latter, however, was forced to go about to prevent a collision.

"*Pleione* claims that there was not room to keep clear, because *Spartan* was to weather and close aboard.

"*Spartan* having an overlap had the right to pass the mark buoy on the proper hand, and could not be forced about by *Pleione*.

"The starboard tack rights of *Iroquois II.* were interfered with by *Pleione* and not by *Spartan*. There was no question of sea room because *Pleione* could have kept off. If any interference had developed later by so doing between *Iroquois II.* and *Spartan*, it would have been another question.

"The interference of *Iroquois II.* by *Pleione* resulted from the unfortunate position into which *Pleione* was sailed. The Committee have decided to disqualify *Pleione* under Racing Rule XIX., Section 4.

"Referring to *Pleione's* protest of *Spartan*, the protest is not sustained, because, first, being disqualified the right to protest failed, and, secondly, *Spartan* did go about as soon after clearing the buoy as the wind and tide would permit with safety.

"Yours respectfully,

"REGATTA COMMITTEE."

CASE IX

PROTEST UNDER RULE XVIII

New York Yacht Club

(Not dated.)

"Chairman of Regatta Committee,
New York Yacht Club.

"DEAR SIR:

"I herewith protest the Auxiliary Schooner Yacht *Idler* on August the thirteenth in the run from Morris Cove to New London.

"In the first place she had no racing number on her mainsail, we of course supposed she was not in the race, and secondly she forced us about while we were on the starboard tack which is another violation of all racing rules.

"Yours very truly,

"OWNER, YACHT *Atlantic*."

Although this protest was received about five months after the race was sailed, the decision would have been the same if the written protest had been received within a much shorter time. The rule is clear that the protest code flag "B" shall be at once displayed and the protest supplemented by a written statement of the facts, and sent to the Committee before 6 P.M. of the next (week) day. A Committee must have something definite in writing, which it can send to the protested yacht for consideration and reply. It is not a hardship to

supplement the flag by a letter written within twenty-four hours, if the protest is to be deemed worthy of action by the Committee.

On large yachts, the protest flag "B" is an essential feature of the rule, and it should be always so considered.

The Committee replied as below:

"5th March, 1905.

"Owner, Yacht *Atlantic*,

"DEAR SIR:

"The Regatta Committee beg leave to acknowledge receipt of your favor of February 5th, enclosing an undated protest against Auxiliary Schooner *Idler* in the run from Morris Cove to New London, on August 13, 1904.

"The Committee regret to inform you that they do not sustain the above mentioned protest, on the ground that the said protest was not filed within the prescribed time as called for in Rule XVII.¹ of the Racing Rules.

"Very truly yours,

"REGATTA COMMITTEE."

¹ Now Rule XVIII.

CASE X

PROTEST UNDER RULE XIX., SECTION 2

New York Yacht Club

This protest resulted after both yachts had made about twenty-five short tacks against the tide.

"11th August, 1906.

"Regatta Committee,
New York Yacht Club.

"GENTLEMEN:

"I protest *Queen* in to-day's race under Rule XX.,¹ Section 2, for wrongfully causing *Elmina* to tack upon calling 'shoal water' when the necessity for such call did not exist. *Elmina* was on *Queen's* weather and by tacking lost her favored position. Immediately before and after tacking, *Elmina* took such measures as were practicable to ascertain the conditions and her position.

"Both chart and sounding lead gave plenty of water with a very large margin of safety.

"Respectfully,

"OWNER, YACHT *Elmina*."

A copy of the protest was immediately sent to *Queen*. A date for a hearing was arranged, convenient for all parties.

¹ This rule is now Rule XIX.

At the hearing the following statement was written out and agreed to by both yachts. Also, a brief synopsis of each yacht's claim was taken down in writing (Figure XIX.).

Statement of Facts, as Agreed to by both Yachts

"On one of the tacks to windward, about half-way between Tarpaulin Cove and Robinsons Hole, when both yachts were standing on the port tack with *Elmina* to windward, the *Queen* called for water and at or about the same time luffed in the wind. *Elmina* went about, the *Queen* following, both on the starboard tack, Tarpaulin Cove Light bearing from *Elmina* northeast one quarter east, both yachts distant from the shore between one quarter of a mile and 1200 feet. In the new position *Elmina* was leading, with *Queen* in her wake and very slightly to leeward of her wake.

"The course of the yachts at the time of the hail for water was west three quarters north. The speed of the yachts through the water was about 6 to 7 knots at the time. The hour of the day was 12.05 P.M. The direction of the wind was southwest three quarters west. The direction of the tide was to the eastward. Just as *Elmina* went about the lead line was cast and no bottom was found at the seven fathom mark. (The statement of this sounding was made by *Elmina*, and *Queen* had no means of disputing the same.) The draught of *Elmina* was 15 ft. 6 in. The draught of *Queen* was 23 ft. with board down. The distance between the courses of the yachts was about 250 feet just before the call for water, the *Queen* being on *Elmina*'s lee bow.

"*Elmina*'s protest is made under Section 2 of Racing

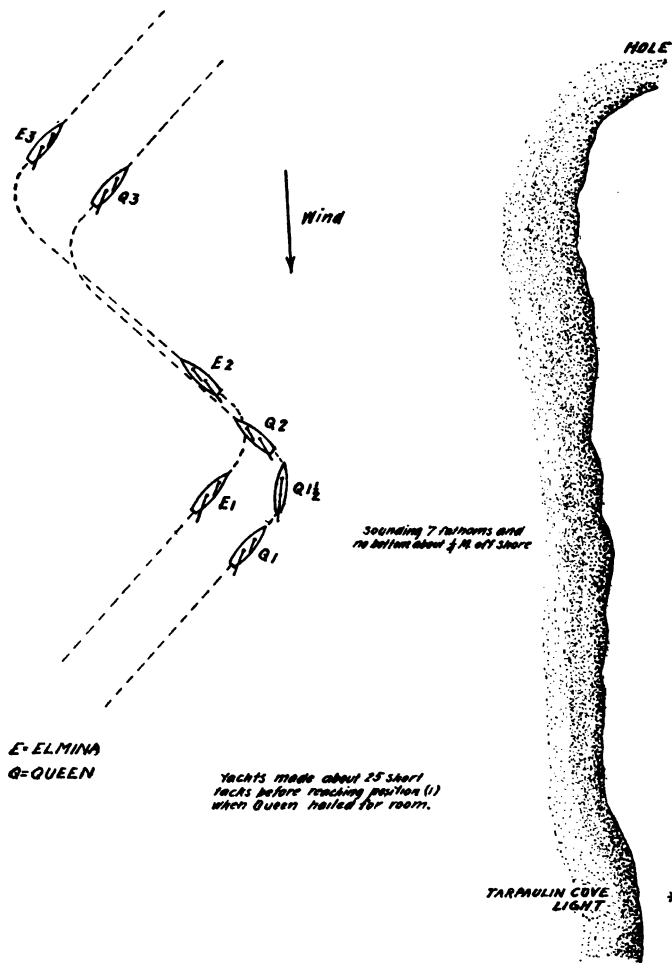


Figure XIX.

Rule XX.,¹ and *Queen's* answer is made under Section 9 of Racing Rule XIII.²

"The Statement of Elmina:

"Just before the call from *Queen*, *Elmina* was out-footing *Queen* and claims she would have gone clear before placing *Queen* in danger of going ashore. The advantage which *Elmina* had maintained in the previous tacks was due to her windward position, holding back *Queen* until *Elmina* became in front of *Queen*, allowing the yachts to go about practically at the same time and *Elmina* to maintain position, although *Queen* went in stays and filled away more rapidly than *Elmina*.

"The Statement of Queen:

"The *Queen* claims that it would have been impossible for *Elmina* to have placed herself on *Queen's* weather bow before both would have been on the beach; that she had not only to reach past her but to get out by her wind and get on her weather bow to hold her in any way, and in one minute it would have been impossible for her to—going at the speed she was—hold us and outfoot us, as she (*Elmina*) would have had to travel 250 feet per minute faster than *Queen*, and as both yachts were going at least 600 feet per minute it would mean that *Elmina* would have had to sail more than three feet to *Queen's* two feet. There is no evidence to justify any such claim. Furthermore, *Queen* claims that the inside yacht on a lee shore, especially when her draft exceeds that of the outside yacht by nearly fifty per cent. is entitled to be the judge as to when the danger point has been reached and not be forced to take the chance of wrecking to avoid being protested.

¹ This rule is now Rule XIX. ² This rule is now Rule XII.

"According to the statement of fact as to the distance the two boats were from the beach—about 1500 feet—at the speed the boats were going, in two and a half minutes we (*Queen*) would have been on dry land, which would leave very little margin for any boat that was on the quarter of another to get out on her weather bow when the boats were going at practically the same speed through the water."

This record was sent to each yacht before the Committee reached any conclusion. In reply the following letter was received from *Elmina*.

"November 20, 1906.

"Regatta Committee,
New York Yacht Club.

"GENTLEMEN:

"I have the copy of the statement of *Elmina* and *Queen*, and the additional statement of *Queen*. I must take exception to this statement of *Queen*. *Elmina* at the time was increasingly blanketing *Queen*, *Queen* losing speed. *Elmina* having overcome the inertia of tacking shortly before was gaining speed. It would have been but a very short time before *Queen* could tack and go clear.

"This is, I think, well established by the earlier history of the race. *Elmina*, starting some 17 seconds ahead of *Queen*, maintained her position through some 25 tacks and improved it, as at the time of the hail by *Queen*, *Elmina* was nearly 250 feet to windward.

"Two hundred and fifty feet at six knots equals about one half a minute of time, and to windward is more than this. What would have happened had the *Queen* held her course a minute longer cannot be established by fact.

"This fact has been established by bearing and sounding by *Elmina*, and acknowledgment by *Queen*, that *Queen* was in no danger of going ashore at the

time of her hail. *Queen* based her hail upon what might happen at sometime more or less distant. *Queen* took none of the usual means to ascertain her position relative to her distance from shore, nor depth of water at the time of her hailing. *Queen* estimates a shorter distance to shore than *Elmina* at the time of her hail. How does she estimate this? Her bearing at the time of the tack preceding the hail, her course and time sailed. The estimated speed of *Queen* is six to seven knots,—not very accurate. *Elmina's* estimate should be nearly correct, as she took the bearing, and the sounding showed not less than a certain depth. Under the rule, the inshore yacht has a right to hail when she is in danger of going ashore, and the outside yacht is obliged to give way; but is not an inshore yacht obligated to some extent to assure herself of her position?

“Yours truly,

“OWNER, YACHT *Elmina*.”

After careful consideration of the facts as reported, the Committee sent the following letter:

“24th November, 1906.

“Owner, Yacht *Elmina*.

“DEAR SIR:

“Having carefully considered the testimony in reference to your protest of 11th August, 1906, against *Queen*, we beg leave to state our findings as follows:

“1. Your protest was made under that part of Section 2, Racing Rule XX.,¹ which states that ‘any yacht which shall without due cause compel another yacht to give room or to tack under Section 9, Racing Rule XIII.,’² shall be disqualified.’

“2. As there was no question about the call of *Queen* for room, or about the promptness of *Elmina* in giving room by tacking when hailed, the question at issue resolves itself into: first, was *Queen*, by virtue of

¹ This rule is now Rule XIX.

² This is now Rule XII.

her position under *Elmina's* lee bow when approaching shoal water, justified in calling for room; and, second, did *Elmina* suffer anything by going about when hailed, that is, more than she might have suffered when she must have tacked a little later when nearer the shore.

"3. Rules XIII.¹ and XX.² provide protection for a yacht approaching shoal water. While a yacht must not call for room too soon, the evident intention of the rules is that a yacht shall not be carried by another until such a point is reached that there is actual danger of grounding, but that a yacht may come about before there is actual risk of accident. The danger point in approaching any shore is indefinite, and the relief provided is a hail for room, with the qualification that the yacht hailing shall tack at the same time as the yacht hailed. It appears that *Queen* did commence to come about before *Elmina*.

"4. As the beach was distant not more than 1500 feet, and possibly not over 1200 feet, and as at least a large portion of this distance was too shoal for a yacht drawing twenty-three feet of water, we believe that the hail of *Queen* for water was justifiable.

"5. As the yachts were sailing at the rate of about 6½ knots, or at a speed of about 660 feet per minute, *Elmina* in all probability would have tacked within one minute after she did tack. During that minute, *Elmina* could not have outfooted *Queen* enough to allow *Elmina* to be on *Queen's* weather when the yachts filled away on the starboard tack. We, therefore, believe that *Elmina* did not suffer any material damage due to answering the call of *Queen* for water.

"6. In view of the foregoing, the protest is not sustained.

"Yours respectfully,

"REGATTA COMMITTEE."

¹ This rule is now Rule XII.

² This is now Rule XIX.

CASE XI

DISQUALIFICATION UNDER RULE XIX., SECTION 4

American Yacht Club

The American Yacht Club held an open regatta on 3rd July, 1913, in which a number of the N. Y. Y. C. "Fifties," started. Some of the yachts approached the starting line on the starboard tack, of which *Iroquois II.* was one, and some on the port tack, of which *Spartan* and *Pleione* were two. The others were not involved. Just after they crossed the line, *Iroquois II.* had to come about to clear *Pleione*. The situation is shown in Figure XVIII., as *Pleione* protested *Spartan*.¹ The Committee saw the breach of Rule XII., Section 2, Clause (a), and at the finish of the race asked both *Spartan* and *Pleione* if they had any explanation why *Iroquois II.* was interfered with while on the starboard tack.

After hearing from all parties, the Committee concluded that *Pleione* should have foreseen the situation that was arising and have borne away in time to pass under the stern of *Iroquois II.*, and decided that:

"The starboard tack rights of *Iroquois II.* were interfered with by *Pleione* and not by *Spartan*. There was no question of sea room because *Pleione* could

¹ Under Rule XII., Section 9, last paragraph. See Case 8.

have kept off. If any interference had developed later by so doing between *Iroquois II.* and *Spartan*, it would have been another question.

"The interference of *Iroquois II.* by *Pleione*, resulted from the unfortunate position into which *Pleione* was sailed. The Committee have decided to disqualify *Pleione* under Racing Rule XIX., Section 4.

"Yours respectfully,

REGATTA COMMITTEE."

CHAPTER VIII

TABLE OF TIME ALLOWANCE.

The tables are based upon the assumption that, under average racing conditions, a yacht of rating measurement, R, will sail one nautical mile in the number of seconds given by the formula.

$$\frac{2160}{\sqrt{R}} + 183.64$$

The allowance per mile between yachts of different ratings will, therefore, be given by

$$\frac{2160}{\sqrt{r}} - \frac{2160}{\sqrt{R}}$$

in which R is the rating measurement of the large yacht and r that of the smaller one.

Rule for Using the Table.

The figures to be found in the table show in seconds and hundredths of a second what a yacht of the measurement opposite these figures would be allowed by one of 150 feet, in sailing one nautical mile.

To find what a yacht of any measurement should receive from a larger one, take the figures to be found opposite the smaller measurement; from these subtract the figures opposite the measurement of the larger yacht, and the difference multiplied by the number of nautical miles in the course will give the amount of the allowance due to the smaller vessel, in seconds and hundredths of a second.

To find the number of seconds required for any yacht to sail one nautical mile add 360 to the number in the table opposite the yacht's rating measurement.

Example.

What time will a yacht of 70 feet racing length have to allow to one of 65 feet racing length, in a course of 20 nautical miles?

The time opposite 65 feet is.....	91.55
The time opposite 70 feet is.....	81.82
	<hr/>
Difference.....	9.73
Number of Nautical Miles.....	20
	<hr/>
Allowance.....	194.6
Or 3 minutes 15 seconds	

For fractions of a foot in the measurement use the nearest tenth to be found in the table.

TIME ALLOWANCE TABLES FOR ONE NAUTICAL MILE IN SECONDS AND DECIMALS.

Rating.	Allow- ance.	Rating.	Allow- ance.	Rating.	Allow- ance.	Rating.	Allow- ance.
15.0	381.35	18.0	332.75	21.0	294.98	24.0	264.55
.1	379.49	.1	331.33	.1	293.87	.1	263.64
.2	377.65	.2	329.93	.2	292.76	.2	262.73
.3	375.83	.3	328.54	.3	291.65	.3	261.82
.4	374.03	.4	327.17	.4	290.56	.4	260.92
.5	372.26	.5	325.83	.5	289.48	.5	260.03
.6	370.50	.6	324.48	.6	288.40	.6	259.14
.7	368.76	.7	323.14	.7	287.33	.7	258.26
.8	367.03	.8	321.82	.8	286.26	.8	257.38
.9	365.31	.9	320.50	.9	285.20	.9	256.51
16.0	363.64	19.0	319.19	22.0	284.15	25.0	255.65
.1	361.97	.1	317.89	.1	283.10	.1	254.78
.2	360.31	.2	316.60	.2	282.07	.2	253.92
.3	358.66	.3	315.32	.3	281.04	.3	253.07
.4	357.02	.4	314.05	.4	280.02	.4	252.23
.5	355.39	.5	312.78	.5	279.00	.5	251.39
.6	353.79	.6	311.53	.6	277.99	.6	250.55
.7	352.21	.7	310.29	.7	276.99	.7	249.72
.8	350.64	.8	309.06	.8	276.00	.8	248.89
.9	349.08	.9	307.84	.9	275.01	.9	248.07
17.0	347.52	20.0	306.62	23.0	274.03	26.0	247.25
.1	345.99	.1	305.42	.1	273.06	.1	246.44
.2	344.47	.2	304.24	.2	272.09	.2	245.63
.3	342.96	.3	303.05	.3	271.13	.3	244.82
.4	341.46	.4	301.87	.4	270.17	.4	244.02
.5	339.97	.5	300.71	.5	269.22	.5	243.23
.6	338.50	.6	299.54	.6	268.27	.6	242.44
.7	337.04	.7	298.39	.7	267.33	.7	241.66
.8	335.60	.8	297.25	.8	266.40	.8	240.88
.9	334.17	.9	296.11	.9	265.48	.9	240.10

Rating.	Allow- ance.	Rating.	Allow- ance.	Rating.	Allow- ance.	Rating.	Allow- ance.
27.0	239.33	31.0	211.61	35.0	188.76	39.0	169.52
.1	238.56	.1	210.98	.1	188.24	.1	169.08
.2	237.79	.2	210.36	.2	187.72	.2	168.64
.3	237.03	.3	209.74	.3	187.20	.3	168.19
.4	236.27	.4	209.11	.4	186.68	.4	167.75
.5	235.52	.5	208.50	.5	186.17	.5	167.31
.6	234.78	.6	207.89	.6	185.65	.6	166.88
.7	234.04	.7	207.28	.7	185.15	.7	166.45
.8	233.30	.8	206.68	.8	184.64	.8	166.02
.9	232.57	.9	206.08	.9	184.14	.9	165.60
28.0	231.84	32.0	205.48	36.0	183.64	40.0	165.18
.1	231.11	.1	204.88	.1	183.14	.1	164.75
.2	230.39	.2	204.29	.2	182.64	.2	164.32
.3	229.67	.3	203.70	.3	182.15	.3	163.88
.4	228.95	.4	203.11	.4	181.66	.4	163.46
.5	228.24	.5	202.52	.5	181.16	.5	163.04
.6	227.53	.6	201.94	.6	180.67	.6	162.62
.7	226.82	.7	201.36	.7	180.19	.7	162.21
.8	226.12	.8	200.79	.8	179.71	.8	161.80
.9	225.43	.9	200.22	.9	179.23	.9	161.39
29.0	224.74	33.0	199.65	37.0	178.75	41.0	160.98
.1	224.05	.1	199.08	.1	178.27	.1	160.56
.2	223.37	.2	198.51	.2	177.79	.2	160.15
.3	222.68	.3	197.95	.3	177.31	.3	159.74
.4	222.00	.4	197.39	.4	176.83	.4	159.34
.5	221.33	.5	196.83	.5	176.36	.5	158.93
.6	220.66	.6	196.27	.6	175.90	.6	158.52
.7	219.99	.7	195.72	.7	175.43	.7	158.12
.8	219.32	.8	195.17	.8	174.96	.8	157.73
.9	218.66	.9	194.63	.9	174.50	.9	157.33
30.0	218.00	34.0	194.09	38.0	174.04	42.0	156.93
.1	217.34	.1	193.54	.1	173.58	.1	156.53
.2	216.70	.2	193.00	.2	173.12	.2	156.13
.3	216.05	.3	192.46	.3	172.67	.3	155.74
.4	215.40	.4	191.92	.4	172.21	.4	155.35
.5	214.75	.5	191.38	.5	171.76	.5	154.96
.6	214.11	.6	190.85	.6	171.30	.6	154.57
.7	213.48	.7	190.32	.7	170.84	.7	154.19
.8	212.85	.8	189.79	.8	170.40	.8	153.80
.9	212.23	.9	189.28	.9	169.96	.9	153.42

TIME ALLOWANCE.—Continued.

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Rating.	Allow- ance.	Rating.	Allow- ance.	Rating.	Allow- ance.	Rating.	Allow- ance.
43.0	153.04	47.0	138.71	51.0	126.10	55.0	114.90
.1	152.66	.1	138.38	.1	125.81	.1	114.64
.2	152.28	.2	138.05	.2	125.51	.2	114.37
.3	151.90	.3	137.71	.3	125.21	.3	114.11
.4	151.52	.4	137.38	.4	124.92	.4	113.84
.5	151.14	.5	137.05	.5	124.62	.5	113.58
.6	150.76	.6	136.73	.6	124.33	.6	113.32
.7	150.38	.7	136.40	.7	124.04	.7	113.05
.8	150.01	.8	136.07	.8	123.76	.8	112.79
.9	149.65	.9	135.74	.9	123.47	.9	112.53
44.0	149.28	48.0	135.41	52.0	123.18	56.0	112.27
.1	148.91	.1	135.08	.1	122.89	.1	112.01
.2	148.54	.2	134.76	.2	122.60	.2	111.75
.3	148.17	.3	134.44	.3	122.32	.3	111.49
.4	147.80	.4	134.11	.4	122.03	.4	111.24
.5	147.43	.5	133.79	.5	121.74	.5	110.99
.6	147.07	.6	133.47	.6	121.45	.6	110.74
.7	146.71	.7	133.16	.7	121.17	.7	110.49
.8	146.35	.8	132.85	.8	120.89	.8	110.24
.9	145.99	.9	132.54	.9	120.61	.9	109.99
45.0	145.64	49.0	132.22	53.0	120.33	57.0	109.74
.1	145.28	.1	131.90	.1	120.05	.1	109.49
.2	144.92	.2	131.58	.2	119.77	.2	109.24
.3	144.56	.3	131.27	.3	119.50	.3	108.99
.4	144.20	.4	130.96	.4	119.22	.4	108.64
.5	143.85	.5	130.64	.5	118.94	.5	108.49
.6	143.50	.6	130.33	.6	118.67	.6	108.24
.7	143.15	.7	130.03	.7	118.39	.7	108.00
.8	142.80	.8	129.72	.8	118.12	.8	107.76
.9	142.46	.9	129.42	.9	117.85	.9	107.52
46.0	142.12	50.0	129.12	54.0	117.58	58.0	107.28
.1	141.78	.1	128.81	.1	117.31	.1	107.03
.2	141.43	.2	128.50	.2	117.04	.2	106.78
.3	141.08	.3	128.20	.3	116.77	.3	106.52
.4	140.74	.4	127.89	.4	116.50	.4	106.28
.5	140.39	.5	127.58	.5	116.23	.5	106.04
.6	140.04	.6	127.28	.6	115.96	.6	105.80
.7	139.70	.7	126.98	.7	115.69	.7	105.56
.8	139.37	.8	126.68	.8	115.43	.8	105.32
.9	139.04	.9	126.39	.9	115.16	.9	105.08

Rating.	Allow- ance.	Rating.	Allow- ance.	Rating	Allow- ance.	Rating.	Allow- ance.
59.0	104.84	63.0	95.78	67.0	87.52	71.0	79.99
.1	104.60	.1	95.56	.1	87.32	.1	79.80
.2	104.36	.2	95.34	.2	87.12	.2	79.62
.3	104.12	.3	95.12	.3	86.92	.3	79.44
.4	103.89	.4	94.91	.4	86.73	.4	79.26
.5	103.66	.5	94.70	.5	86.54	.5	79.08
.6	103.42	.6	94.49	.6	86.35	.6	78.90
.7	103.19	.7	94.27	.7	86.16	.7	78.72
.8	102.96	.8	94.06	.8	85.97	.8	78.54
.9	102.73	.9	93.85	.9	85.78	.9	78.37
60.0	102.50	64.0	93.64	68.0	85.59	72.0	78.20
.1	102.26	.1	93.43	.1	85.40	.1	78.02
.2	102.03	.2	93.22	.2	85.21	.2	77.84
.3	101.80	.3	93.01	.3	85.02	.3	77.66
.4	101.57	.4	92.80	.4	84.83	.4	77.48
.5	101.34	.5	92.59	.5	84.64	.5	77.30
.6	101.11	.6	92.38	.6	84.45	.6	77.13
.7	100.88	.7	92.17	.7	84.26	.7	76.96
.8	100.66	.8	91.97	.8	84.07	.8	76.79
.9	100.43	.9	91.76	.9	83.88	.9	76.62
61.0	100.21	65.0	91.55	69.0	83.69	73.0	76.45
.1	99.98	.1	91.34	.1	83.50	.1	76.27
.2	99.76	.2	91.14	.2	83.31	.2	76.10
.3	99.53	.3	90.94	.3	83.12	.3	75.93
.4	99.30	.4	90.73	.4	82.93	.4	75.76
.5	99.07	.5	90.53	.5	82.74	.5	75.59
.6	98.84	.6	90.32	.6	82.55	.6	75.42
.7	98.62	.7	90.12	.7	82.36	.7	75.25
.8	98.40	.8	89.92	.8	82.17	.8	75.08
.9	98.18	.9	89.72	.9	81.99	.9	74.91
62.0	97.96	66.0	89.52	70.0	81.82	74.0	74.74
.1	97.74	.1	89.32	.1	81.63	.1	74.57
.2	97.51	.2	89.12	.2	81.44	.2	74.39
.3	97.29	.3	88.92	.3	81.25	.3	74.22
.4	97.07	.4	88.72	.4	81.07	.4	74.05
.5	96.85	.5	88.52	.5	80.89	.5	73.88
.6	96.64	.6	88.32	.6	80.71	.6	73.72
.7	96.42	.7	88.12	.7	80.53	.7	73.55
.8	96.20	.8	87.92	.8	80.35	.8	73.39
.9	95.99	.9	87.72	.9	80.17	.9	73.23

TIME ALLOWANCE.—Continued.

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Rating.	Allow- ance.	Rating.	Allow- ance.	Rating.	Allow- ance.	Rating.	Allow- ance.
75.0	73.07	79.0	66.67	83.0	60.72	87.0	55.21
.1	72.90	.1	66.52	.1	60.58	.1	55.08
.2	72.73	.2	66.36	.2	60.43	.2	54.95
.3	72.56	.3	66.20	.3	60.29	.3	54.82
.4	72.40	.4	66.05	.4	60.14	.4	54.68
.5	72.23	.5	65.89	.5	60.00	.5	54.55
.6	72.06	.6	65.74	.6	59.86	.6	54.42
.7	71.89	.7	65.59	.7	59.72	.7	54.29
.8	71.73	.8	65.44	.8	59.58	.8	54.16
.9	71.57	.9	65.29	.9	59.44	.9	54.02
76.0	71.41	80.0	65.14	84.0	59.30	88.0	53.89
.1	71.24	.1	64.99	.1	59.16	.1	53.76
.2	71.08	.2	64.84	.2	59.02	.2	53.63
.3	70.92	.3	64.68	.3	58.87	.3	53.50
.4	70.76	.4	64.53	.4	58.73	.4	53.36
.5	70.60	.5	64.38	.5	58.58	.5	53.23
.6	70.44	.6	64.23	.6	58.44	.6	53.10
.7	70.28	.7	64.08	.7	58.31	.7	52.97
.8	70.12	.8	63.93	.8	58.18	.8	52.84
.9	69.96	.9	63.79	.9	58.04	.9	52.71
77.0	69.80	81.0	63.64	85.0	57.90	89.0	52.58
.1	69.64	.1	63.49	.1	57.76	.1	52.45
.2	69.48	.2	63.34	.2	57.62	.2	52.32
.3	69.32	.3	63.19	.3	57.48	.3	52.19
.4	69.16	.4	63.04	.4	57.34	.4	52.06
.5	69.00	.5	62.89	.5	57.20	.5	51.93
.6	68.84	.6	62.75	.6	57.07	.6	51.80
.7	68.69	.7	62.60	.7	56.94	.7	51.67
.8	68.53	.8	62.46	.8	56.81	.8	51.55
.9	68.38	.9	62.32	.9	56.68	.9	51.42
78.0	68.22	82.0	62.17	86.0	56.54	90.0	51.29
.1	68.06	.1	62.02	.1	56.40	.1	51.16
.2	67.90	.2	61.87	.2	56.27	.2	51.03
.3	67.74	.3	61.73	.3	56.14	.3	50.90
.4	67.58	.4	61.58	.4	56.00	.4	50.78
.5	67.43	.5	61.44	.5	55.87	.5	50.66
.6	67.27	.6	61.30	.6	55.74	.6	50.54
.7	67.12	.7	61.15	.7	55.61	.7	50.42
.8	66.97	.8	61.01	.8	55.48	.8	50.30
.9	66.82	.9	60.86	.9	55.34	.9	50.18

Rating	Allow- ance.	Rating	Allow- ance.	Rating	Allow- ance.	Rating	Allow- ance.
91.0	50.06	95.0	45.24	99.0	40.73	103.0	36.47
.1	49.93	.1	45.12	.1	40.61	.1	36.36
.2	49.80	.2	45.00	.2	40.49	.2	36.25
.3	49.67	.3	44.88	.3	40.38	.3	36.14
.4	49.55	.4	44.76	.4	40.27	.4	36.04
.5	49.43	.5	44.64	.5	40.16	.5	35.94
.6	49.31	.6	44.52	.6	40.06	.6	35.84
.7	49.19	.7	44.41	.7	39.95	.7	35.74
.8	49.07	.8	44.30	.8	39.84	.8	35.64
.9	48.95	.9	44.19	.9	39.73	.9	35.54
92.0	48.83	96.0	44.08	100.0	39.62	104.0	35.44
.1	48.70	.1	43.97	.1	39.52	.1	35.34
.2	48.57	.2	43.85	.2	39.41	.2	35.23
.3	48.44	.3	43.73	.3	39.30	.3	35.12
.4	48.32	.4	43.61	.4	39.19	.4	35.02
.5	48.20	.5	43.49	.5	39.08	.5	34.92
.6	48.08	.6	43.38	.6	38.98	.6	34.82
.7	47.96	.7	43.27	.7	38.87	.7	34.72
.8	47.84	.8	43.16	.8	38.76	.8	34.62
.9	47.72	.9	43.05	.9	38.66	.9	34.52
93.0	47.60	97.0	42.94	101.0	38.56	105.0	34.42
.1	47.48	.1	42.83	.1	38.46	.1	34.32
.2	47.36	.2	42.71	.2	38.35	.2	34.22
.3	47.24	.3	42.59	.3	38.24	.3	34.12
.4	47.12	.4	42.48	.4	38.14	.4	34.02
.5	47.00	.5	42.37	.5	38.03	.5	33.92
.6	46.88	.6	42.26	.6	37.92	.6	33.82
.7	46.76	.7	42.16	.7	37.81	.7	33.72
.8	46.65	.8	42.05	.8	37.70	.8	33.62
.9	46.54	.9	41.94	.9	37.60	.9	33.52
94.0	46.43	98.0	41.83	102.0	37.50	106.0	33.42
.1	46.31	.1	41.71	.1	37.39	.1	33.32
.2	46.19	.2	41.59	.2	37.28	.2	33.22
.3	46.07	.3	41.48	.3	37.18	.3	33.12
.4	45.95	.4	41.38	.4	37.07	.4	33.02
.5	45.83	.5	41.27	.5	36.97	.5	32.93
.6	45.71	.6	41.16	.6	36.87	.6	32.83
.7	45.59	.7	41.05	.7	36.77	.7	32.74
.8	45.47	.8	40.94	.8	36.67	.8	32.64
.9	45.35	.9	40.84	.9	36.57	.9	32.54

TIME ALLOWANCE.—Continued.

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Rating.	Allow- ance.	Rating.	Allow- ance.	Rating.	Allow- ance.	Rating.	Allow- ance.
107.0	32.45	111.0	28.61	115.0	25.04	119.0	21.65
.1	32.35	.1	28.52	.1	24.95	.1	21.56
.2	32.26	.2	28.43	.2	24.86	.2	21.48
.3	32.16	.3	28.34	.3	24.77	.3	21.40
.4	32.06	.4	28.25	.4	24.68	.4	21.31
.5	31.97	.5	28.16	.5	24.60	.5	21.23
.6	31.87	.6	28.07	.6	24.52	.6	21.14
.7	31.78	.7	27.98	.7	24.43	.7	21.06
.8	31.68	.8	27.89	.8	24.35	.8	20.98
.9	31.58	.9	27.80	.9	24.26	.9	20.90
108.0	31.49	112.0	27.71	116.0	24.17	120.0	20.82
.1	31.39	.1	27.62	.1	24.08	.1	20.74
.2	31.30	.2	27.53	.2	24.00	.2	20.65
.3	31.20	.3	27.44	.3	23.92	.3	20.57
.4	31.10	.4	27.35	.4	23.83	.4	20.48
.5	31.01	.5	27.26	.5	23.75	.5	20.40
.6	30.91	.6	27.17	.6	23.66	.6	20.32
.7	30.82	.7	27.08	.7	23.58	.7	20.23
.8	30.72	.8	26.99	.8	23.50	.8	20.15
.9	30.62	.9	26.90	.9	23.41	.9	20.06
109.0	30.53	113.0	26.81	117.0	23.33	121.0	19.98
.1	30.43	.1	26.72	.1	23.24	.1	19.90
.2	30.34	.2	26.63	.2	23.16	.2	19.82
.3	30.24	.3	26.54	.3	23.08	.3	19.74
.4	30.14	.4	26.45	.4	22.99	.4	19.66
.5	30.05	.5	26.36	.5	22.91	.5	19.58
.6	29.95	.6	26.27	.6	22.82	.6	19.50
.7	29.86	.7	26.18	.7	22.74	.7	19.42
.8	29.76	.8	26.09	.8	22.66	.8	19.34
.9	29.67	.9	26.00	.9	22.57	.9	19.26
110.0	29.58	114.0	25.91	118.0	22.49	122.0	19.18
.1	29.48	.1	25.82	.1	22.40	.1	19.10
.2	29.39	.2	25.73	.2	22.32	.2	19.02
.3	29.29	.3	25.64	.3	22.24	.3	18.94
.4	29.20	.4	25.55	.4	22.15	.4	18.86
.5	29.10	.5	25.46	.5	22.07	.5	18.78
.6	29.00	.6	25.38	.6	21.98	.6	18.70
.7	28.91	.7	25.30	.7	21.90	.7	18.62
.8	28.81	.8	25.21	.8	21.82	.8	18.54
.9	28.71	.9	25.13	.9	21.73	.9	18.46

Rating.	Allow- ance.	Rating.	Allow- ance.	Rating.	Allow- ance.	Rating.	Allow- ance.
123.0	18.38	127.0	15.29	131.0	12.36	135.0	9.54
.1	18.30	.1	15.21	.1	12.28	.1	9.47
.2	18.22	.2	15.13	.2	12.20	.2	9.40
.3	18.14	.3	15.05	.3	12.13	.3	9.33
.4	18.06	.4	14.98	.4	12.06	.4	9.26
.5	17.98	.5	14.90	.5	11.99	.5	9.19
.6	17.90	.6	14.83	.6	11.92	.6	9.13
.7	17.82	.7	14.76	.7	11.85	.7	9.06
.8	17.74	.8	14.69	.8	11.78	.8	8.99
.9	17.66	.9	14.62	.9	11.71	.9	8.92
124.0	17.58	128.0	14.54	132.0	11.64	136.0	8.86
.1	17.50	.1	14.46	.1	11.57	.1	8.79
.2	17.42	.2	14.39	.2	11.50	.2	8.72
.3	17.36	.3	14.32	.3	11.43	.3	8.65
.4	17.28	.4	14.24	.4	11.36	.4	8.58
.5	17.20	.5	14.17	.5	11.29	.5	8.52
.6	17.12	.6	14.10	.6	11.22	.6	8.45
.7	17.04	.7	14.03	.7	11.15	.7	8.38
.8	16.97	.8	13.96	.8	11.08	.8	8.31
.9	16.90	.9	13.88	.9	11.01	.9	8.24
125.0	16.82	129.0	13.81	133.0	10.94	137.0	8.18
.1	16.74	.1	13.73	.1	10.87	.1	8.11
.2	16.66	.2	13.66	.2	10.80	.2	8.05
.3	16.58	.3	13.58	.3	10.73	.3	7.98
.4	16.50	.4	13.51	.4	10.66	.4	7.91
.5	16.43	.5	13.44	.5	10.59	.5	7.84
.6	16.36	.6	13.37	.6	10.52	.6	7.78
.7	16.28	.7	13.30	.7	10.45	.7	7.71
.8	16.21	.8	13.22	.8	10.38	.8	7.64
.9	16.14	.9	13.15	.9	10.31	.9	7.57
126.0	16.06	130.0	13.08	134.0	10.24	138.0	7.51
.1	15.98	.1	13.00	.1	10.17	.1	7.44
.2	15.90	.2	12.92	.2	10.10	.2	7.38
.3	15.82	.3	12.85	.3	10.03	.3	7.31
.4	15.74	.4	12.78	.4	9.96	.4	7.25
.5	15.66	.5	12.71	.5	9.89	.5	7.18
.6	15.59	.6	12.64	.6	9.82	.6	7.11
.7	15.52	.7	12.57	.7	9.75	.7	7.05
.8	15.44	.8	12.50	.8	9.68	.8	6.98
.9	15.37	.9	12.43	.9	9.61	.9	6.91

TIME ALLOWANCE.—*Concluded.*

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Rating.	Allow- ance.	Rating.	Allow- ance.	Rating.	Allow- ance.	Rating.	Allow- ance.
139.0	6.85	142.0	4.90	145.0	3.02	148.0	1.19
.1	6.78	.1	4.83	.1	2.95	.1	1.13
.2	6.72	.2	4.77	.2	2.89	.2	1.07
.3	6.65	.3	4.70	.3	2.82	.3	1.01
.4	6.59	.4	4.64	.4	2.76	.4	0.95
.5	6.52	.5	4.57	.5	2.70	.5	0.89
.6	6.45	.6	4.51	.6	2.64	.6	0.83
.7	6.39	.7	4.44	.7	2.58	.7	0.77
.8	6.32	.8	4.38	.8	2.52	.8	0.71
.9	6.25	.9	4.32	.9	2.46	.9	0.65
140.0	6.19	143.0	4.26	146.0	2.40	149.0	0.59
.1	6.12	.1	4.19	.1	2.33	.1	0.53
.2	6.06	.2	4.13	.2	2.27	.2	0.47
.3	5.99	.3	4.06	.3	2.21	.3	0.41
.4	5.93	.4	4.00	.4	2.15	.4	0.35
.5	5.86	.5	3.94	.5	2.09	.5	0.29
.6	5.80	.6	3.88	.6	2.03	.6	0.23
.7	5.73	.7	3.82	.7	1.97	.7	0.17
.8	5.67	.8	3.76	.8	1.91	.8	0.11
.9	5.60	.9	3.70	.9	1.85	.9	0.05
141.0	5.54	144.0	3.64	147.0	1.79	150.0	0.00
.1	5.47	.1	3.57	.1	1.73		
.2	5.41	.2	3.51	.2	1.67		
.3	5.34	.3	3.44	.3	1.61		
.4	5.28	.4	3.38	.4	1.55		
.5	5.21	.5	3.32	.5	1.49		
.6	5.15	.6	3.26	.6	1.43		
.7	5.08	.7	3.20	.7	1.37		
.8	5.02	.8	3.14	.8	1.31		
.9	4.96	.9	3.08	.9	1.25		

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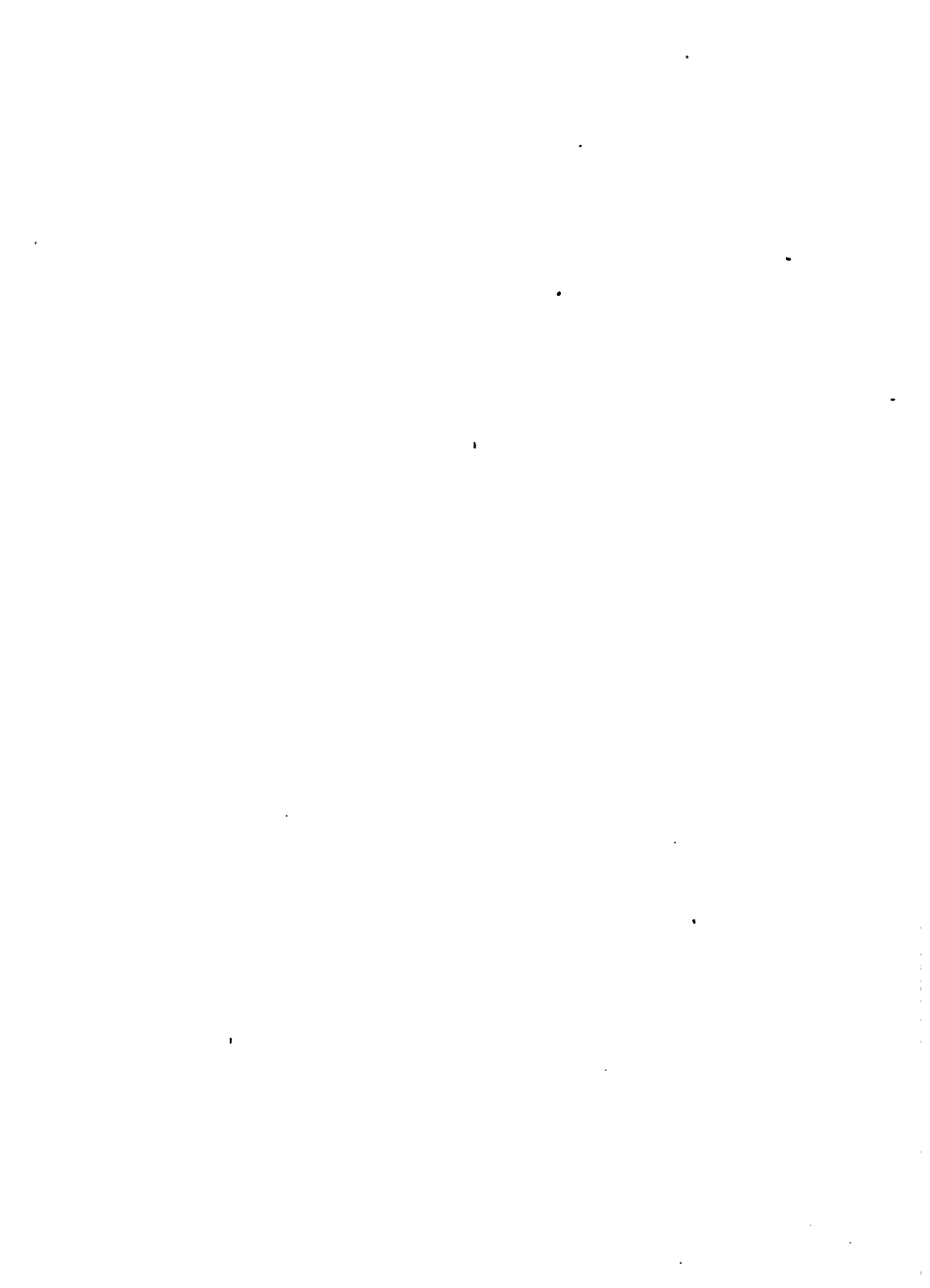
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